© THE QUEEN'S PRINTER FOR
ONTARIO
2000

REPRODUCED WITH PERMISSION

L'IMPRIMEUR DE LA REINE POUR
L'ONTARIO

REPRODUIT AVEC PERMISSION

micromedia
a division of IHS Canada

20 Victoria Street
Toronto, Ontario M5C 2N8
Tel.: (416) 362-5211
Toll Free: 1-800-387-2689
Fax: (416) 362-6161
Email: info@micromedia.on.ca

Ontario

ONTARIO GEOLOGICAL SURVEY

Open File Report 6039

Mishibishu Lake Area High Density Regional Lake Sediment and Water Geochemical Survey, Northern Ontario

by

J.E. Jackson

2000

Parts of this publication may be quoted if credit is given. It is recommended that reference to this publication be made in the following form:

Jackson, J.E. 2000. Mishibishu Lake area high density regional lake sediment and water geochemical survey, northern Ontario; Ontario Geological Survey, Open File Report 6039, 74p.

© Queen's Printer for Ontario, 2000

101-02429/

© Queen's Printer for Ontario, 2000.

Open File Reports of the Ontario Geological Survey are available for viewing at the Mines Library in Sudbury, at the Mines and Minerals Information Centre in Toronto, and at the regional Mines and Minerals office whose district includes the area covered by the report (see below).

Copies can be purchased at Publication Sales and the office whose district includes the area covered by the report. Although a particular report may not be in stock at locations other than the Publication Sales office in Sudbury, they can generally be obtained within 3 working days. All telephone, fax, mail and e-mail orders should be directed to the Publication Sales office in Sudbury. Use of VISA or MasterCard ensures the fastest possible service. Cheques or money orders should be made payable to the *Minister of Finance*.

Mines and Minerals Information Centre (MMIC) Macdonald Block, Room M2-17 900 Bay St. Toronto, Ontario M7A 1C3	Tel:	(416) 314-3800 1-800-665-4480(toll free inside Ontario)
Mines Library 933 Ramsey Lake Road, Level A3 Sudbury, Ontario P3E 6B5	Tel:	(705) 670-5615
Publication Sales 933 Ramsey Lake Rd., Level A3 Sudbury, Ontario P3E 6B5	Tel: Fax: E-mail:	(705) 670-5691(local) 1-888-415-9845(toll-free) (705) 670-5770 pubsales@ndm.gov.on.ca

Regional Mines and Minerals Offices:

Kenora - Suite 104, 810 Robertson St., Kenora P9N 4J2

Kirkland Lake - 10 Government Rd. E., Kirkland Lake P2N 1A8

Red Lake - Box 324, Ontario Government Building, Red Lake P0V 2M0

Sault Ste. Marie - 70 Foster Dr., Ste. 200, Sault Ste. Marie P6A 6V8

Southern Ontario - P.O. Bag Service 43, Old Troy Rd., Tweed K0K 3J0

Sudbury - Level B3, 933 Ramsey Lake Rd., Sudbury P3E 6B5

Thunder Bay - Suite B002, 435 James St. S., Thunder Bay P7E 6S7

Timmins - Ontario Government Complex, P.O. Bag 3060, Hwy. 101 East, South Porcupine P0N 1H0

Toronto - MMIC, Macdonald Block, Room M2-17, 900 Bay St., Toronto M7A 1C3

This report has not received a technical edit. Discrepancies may occur for which the Ontario Ministry of Northern Development and Mines does not assume any liability. Source references are included in the report and users are urged to verify critical information. Recommendations and statements of opinions expressed are those of the author or authors and are not to be construed as statements of government policy.

If you wish to reproduce any of the text, tables or illustrations in this report, please write for permission to the Team Leader, Publication Services, Ministry of Northern Development and Mines, 933 Ramsey Lake Road, Level B4, Sudbury, Ontario P3E 6B5.

Cette publication est disponible en anglais seulement.

Parts of this report may be quoted if credit is given. It is recommended that reference be made in the following form:

Jackson, J.E. 2000. Mishibishu Lake area high density regional lake sediment and water geochemical survey, northern Ontario; Ontario Geological Survey, Open File Report 6039, 74p.

Contents

Abstract vii

Introduction 1

Bedrock Geology 2

Physiography and Quaternary Geology 4

Sampling Methods 4

Sample Preparation and Analytical Methods 6

Quality Control Results 6
    Lake Sediments 6
    Lake Water 8

Discussion of Regional Geochemical Patterns 10

Description of Selected Anomalous Areas 11
    Area 1: Ellen Lake: Au 14
    Area 2: Eaglet Lake: Au 14
    Area 3: Mountain Ash Hill: Au, As, Ag, Cr, Pb, Cu, Ni, Zn 15
    Area 4: Denison Lake: Cu, Pb, Ni, Ag, Zn 15
    Area 5: Rook Lake: Au, Ag, As, Pb 15
    Area 6: Eagle River west: Au 16
    Area 7: East Pukaskwa Deformation Zone: As, Ni, Ag, Zn 16
    Area 8: University River: Au 16
    Area 9: Bog Lake: Au 17
    Area 10: Iron Lake: Au 17

Conclusions 17

Acknowledgments 17

References 18

Metric Conversion Table 74

FIGURES

1. Location map of the Mishibishu Lake area high density lake sediment and water geochemical survey 1
2. Generalized bedrock geology, Mishibishu Lake study area 3
3. Generalized Quaternary geology, Mishibishu Lake study area 5
4. Location of geochemically anomalous areas 12
5. Land tenure map of the Mishibishu survey area as of September 2000 13
6. Sample site location map for the Mishibishu area lake sediment and water geochemical survey ......back pocket

TABLES

1. Mishibishu Lake study area, lake sediment dataset, summary of elements analyzed by ICP, INAA and lead fire assay/ICP-MS and quality control data including estimates of precision 7
2. Mishibishu Lake study area, lake water dataset, summary of elements analyzed by ICP-MS and quality control data including estimates of precision 9

Abstract

A helicopter supported regional lake sediment and water geochemical survey of the Mishibishu Lake area was completed during the summer of 1999. The study area is located approximately 30 km northwest of Wawa in northern Ontario. Lake sediment samples were collected at 1329 sites and lake water samples were collected from 1384 sites. Preliminary interpretation of the geochemical patterns has outlined 10 anomalous areas. The anomalous elements include: Au, As, Ni, Cu, Zn, Pb and Ag. The anomalous areas are loosely ranked in order of their exploration interest. As of September 2000, large portions of the Mishibishu greenstone belt are staked or are withdrawn from staking. The 2 most interesting anomalies outlined in this report lie in areas open for staking. Digital geochemical data for this survey has been released separately from this report as Miscellaneous Release Data (MRD) 66.

Mishibishu Lake Area High Density Regional Lake Sediment and Water Geochemical Survey, Northern Ontario

J.E. Jackson[1]

Ontario Geological Survey
Open File Report 6039
2000

---

[1] Geoscientist, Sedimentary Geoscience Section, Ontario Geological Survey
Ministry of Northern Development and Mines, Sudbury, Ontario, Canada, P3E 6B5
Jay.Jackson@ndm.gov.on.ca

Introduction

Fieldwork for a high density lake sediment and water geochemical survey of the Mishibishu Lake area was carried out by Sedimentary Geoscience staff during June and July, 1999. The survey covered approximately 1900 km^2 extending south to Lake Superior, west to Pukaskwa National Park, north to Obatanga Provincial Park and east to within 10 km of Highway 17 (Figure 1). The survey area is located about 30 km northwest of Wawa and wholly encompasses the area represented on National Topographic Series (NTS) map sheet 42 C/3 and portions of NTS sheets 42 C/4, 42 C/6, 41 N/13 and 41 N/14. Lake sediment and/or water samples were collected at 1384 sites for an average density of 1 sample per 1.4 km^2. The Mishibishu Lake area was selected for this type of survey to provide a geochemical database to aid exploration for an area with high economic mineral potential.

Some of the lakes within the study area were sampled during the national geochemical reconnaissance lake sediment program completed by the Geological Survey of Canada (GSC) in the late 1970s (Friske et al. 1991a, 1991b). The GSC survey covered a large area of northwestern Ontario with an average density of 1 sample per 13 km^2. A regional stream sediment geochemical program was conducted by the Ontario Division of Mines in the Mishibishu Lake area in 1968 (Wolfe 1976).

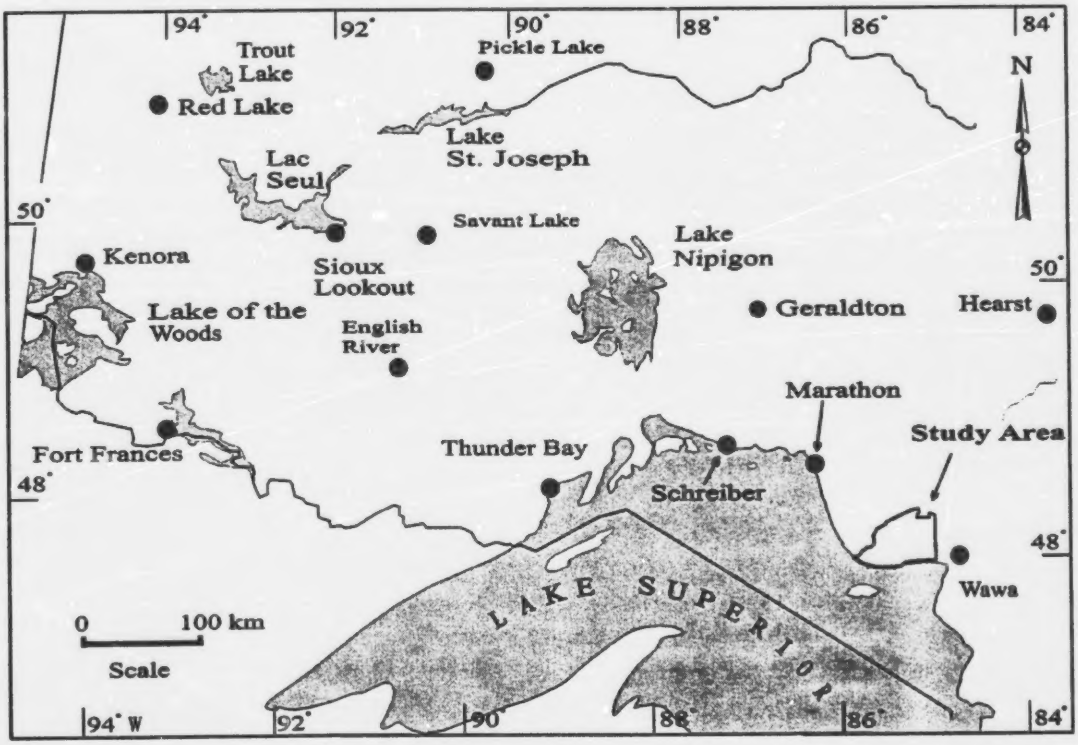

94°
92°
90°
88°
86°
84°
Trout Lake
Red Lake
Pickle Lake
N
Lake St. Joseph
Lac Seul
50°
Savant Lake
Kenora
Sioux Lookout
Lake Nipigon
50°
Geraldton
Hearst
Lake of the Woods
English River
Marathon
Study Area
Fort Frances
Thunder Bay
Schreiber
48°
48°
Wawa
LAKE SUPERIOR
0
100 km
Scale
94° W
92°
90°
88°
86°
84°

Figure 1. Location map of the Mishibishu Lake area high density lake sediment and water geochemical survey.

Bedrock Geology

The 1999 lake geochemistry survey covered the western most portion of the Michipicoten greenstone belt and the entire Mishibishu greenstone belt.

The Michipicoten greenstone belt is the largest such belt in the Wawa Subprovince with an east striking sequence of Archean supracrustal rocks that is approximately 140 km long and up to 45 km wide; only the extreme western portion of the belt was covered in this survey (Figure 2). The belt consists of 3 cycles or distinct episodes of mafic to felsic volcanism dated at 2.9 Ga., 2.75 Ga. and 2.7 Ga. in age (Sage 1994). These cycles have been termed (oldest to youngest); the Hawk, Wawa and Catfish assemblages (Williams et al. 1991). The Hawk assemblage consists of massive to pillowed basaltic to peridotitic komatiites overlain by calc-alkalic intermediate to felsic pyroclastic rocks and capped by a thin chert-magnetite-sulphide iron formation. The volcanic units of the 2 younger cycles are similar, with high Mg and Fe rich tholeiites overlain by calc-alkalic intermediate to felsic volcanic and pyroclastic rocks (Sage 1994). The Wawa assemblage is capped by a thick sequence of carbonate and sulphide facies iron formation. The Catfish assemblage contains a thin sequence of chert-magnetite iron formation and is capped by a sequence of metasedimentary rocks. The Wawa and Catfish are the only 2 assemblages known to occur in the present study area.

The greatest economic mineral potential of the Michipicoten greenstone belt is related to gold mineralization. The gold occurs in a number of geological environments and consists of at least 3 different ages of gold mineralization (Sage 1994). Gold mineralization is associated with plutonic rocks of various composition and is found in both local and regional shear zones which display quartz veining, minor sulphides and CO_2, K and S metasomatism (Sage 1994). At the Renabie gold mine, located on the eastern edge of the Michipicoten greenstone belt, gold mineralization is contained within quartz veins within a shear zone that cuts a tonalitic intrusion.

Although there are a number of base metal occurrences in the belt, no economic deposits have been found. Some of the base metal occurrences appear to be associated with mineralized shear zones.

The Mishibishu greenstone belt is an arcuate belt of Archean supracrustal rocks approximately 18 km wide and 60 km in length. The belt consists of Mg and Fe tholeiitic and calc-alkalic mafic metavolcanic and pyroclastic rocks, calc-alkalic intermediate to felsic metavolcanic and pyroclastic rocks, lean chert-magnetite iron formations and clastic metasedimentary rocks (Reid et al. 1991). The volcanic sequences in the belt are lithologically and geochronologically similar to the Catfish assemblage of the Michipicoten greenstone belt (Williams et al. 1991). Most of the Mishibishu greenstone belt is underlain by mafic and felsic intrusive rocks. Felsic plutonic rocks enclose and intrude the supracrustal rocks of the greenstone belt. Mafic intrusive bodies appear as synvolcanic gabbroic dikes and sills that occur almost exclusively in the western portion of the greenstone belt. Massive to pillowed basalt occurs throughout the belt. Intermediate to felsic pyroclastic rocks dominate the eastern portion of the belt while massive flows are more common in the west. Metasedimentary rocks form a relatively continuous unit across the northern portion of the greenstone belt. Diabase dikes with several dominant directions cut all rock types in the area.

The Mishibishu greenstone belt is similar to the Michipicoten greenstone belt, in that the best economic potential in the area is related to gold mineralization. Gold mineralization can be found in all rock types where associated with regionally extensive shear zones. The gold commonly occurs in quartz veins with variable amounts of pyrite, arsenopyrite, galena, chalcopyrite, sphalerite, ankerite, tourmaline and green mica (fuchsite?). The mineralization can be associated with several types of hydrothermal

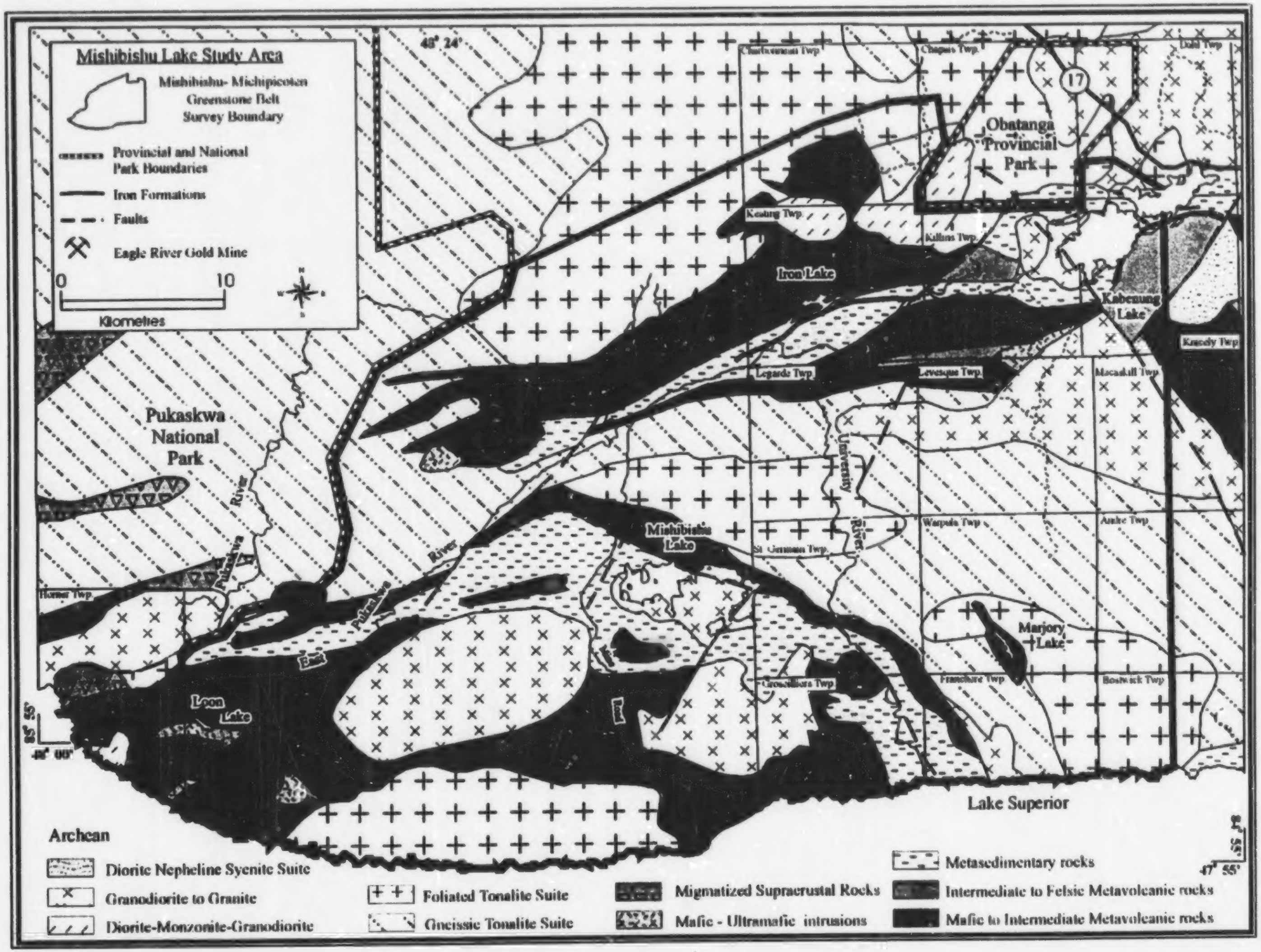

Mishibishu Lake Study Area
Mishibishu- Michipicoten Greenstone Belt Survey Boundary
Provincial and National Park Boundaries
Iron Formations
Faults
Eagle River Gold Mine
0
10
Kilometres
48° 24'
Obatanga Provincial Park
17
Keating Twp
Killins Twp
Iron Lake
Kabenung Lake
Kennedy Twp
Legarde Twp
Levesque Twp
Macaskill Twp
Pukaskwa National Park
River
Pukaskwa
Homer Twp
University River
Mishibishu Lake
St. Germain Twp
Warpula Twp
Marjory Lake
Franchere Twp
Bostwick Twp
Grosseilliers Twp
East
Pukaskwa River
Road
Loon Lake
85° 55'
48° 00'
84° 55'
47° 55'
Lake Superior
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

Figure 2. Generalized geology, Mishibishu Lake study area (after Ontario Geological Survey 1991b).

alteration, including CO_2, K, Na or S metasomatic mineral assemblages. No economic concentrations of base metal sulphides have yet been found in the belt.

Physiography and Quaternary Geology

Most of the topography in the area is of moderate relief. Although some rolling bedrock hills are present, the ground surface generally consists of steep sided ridges and knobs. Stream and river valleys are deeply incised with 30 to 180 m differences in elevation common along the walls of the valleys. The topography becomes more rugged within 10 to 15 km of Lake Superior with peaks ranging from 300 m to 500 m in elevation. A detailed (1:50 000 scale) aggregate resource inventory completed by the Ontario Geological Survey (1991a) and a regional compilation of the Quaternary geology of the area (Barnett et al. 1991), indicate that most of the ground surface is bedrock overlain by a thin veneer of discontinuous drift (Figure 3). The drift is commonly composed of stony, silty sand till.

A large, west trending glaciofluvial outwash deposit consisting of poorly sorted, dirty sand and gravel with abundant boulders occurs in the northern portion of the study area. This deposit is associated with a morainal ridge that was formed during a temporary halt of the retreating ice sheet (Ontario Geological Survey 1991a). Most of the outwash deposits occur in low lying areas and valleys marking positions of glacial meltwater channels (Gartner and McQuay 1979). Small deposits of ice-contact stratified drift, including eskers, occur locally in the southern portion of the study area. The eskers consist predominantly of stratified sand and gravel deposited in sinuous ridges. They have a general south to southwest trend.

Sampling Methods

Organic lake sediment samples were collected from a helicopter float using the Ontario Geological Survey (OGS) designed gravity corer. On average, 22 lakes were sampled per hour of helicopter time. In order to avoid anthropogenic influences and water/sediment interface effects (i.e., increased Mn due to anoxic conditions that result in secondary accumulation of base metals), only deep sediment (>20 cm below the sediment surface) was collected. This sediment better reflects the effects of natural geochemical inputs that may be related to local geology.

Lake water samples were collected at a depth of 0.5 m from shallow lakes (<3 m deep) and at a depth of 2 m from deep lakes (>3 m). A semi-automated water sampling apparatus, developed by the OGS, was utilized for water collection. The apparatus consists of a submersible pump, a flow cell (for measurement of parameters such as pH, conductivity, oxidation-reduction potential and dissolved oxygen), a sample bottle tray and various hoses and pinch valves. Water is pumped from the lake and allowed to purge the sampling system prior to the collection of a water sample and the recording of water quality parameters. Water samples were kept cool after collection and processed (filtered and acidified) within 24 hours of collection.

A GPS receiver was utilized to record accurate sample site positions. A customized database application operated on a pen based computer was used to record sample descriptions and observations.

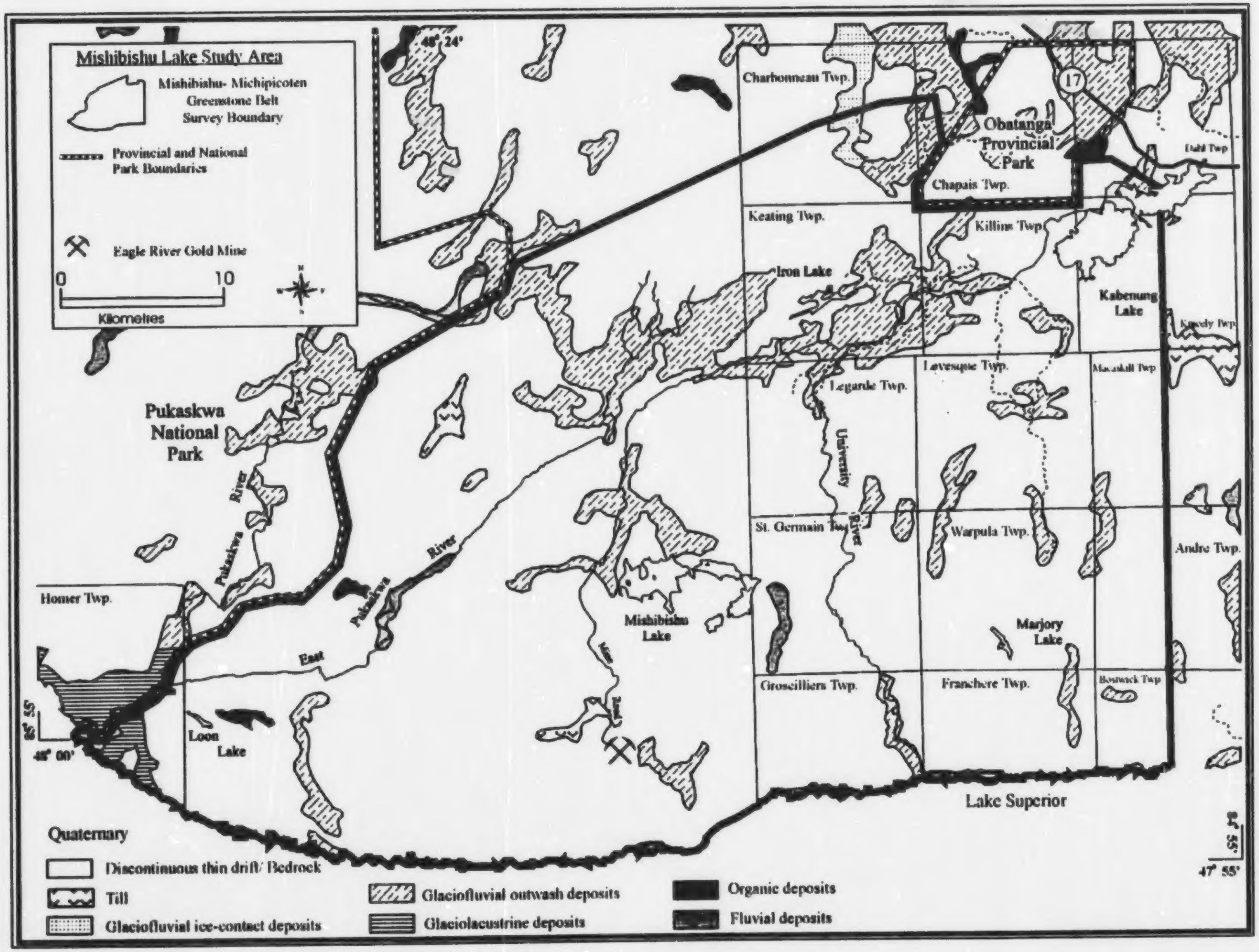

Mishibishu Lake Study Area
Mishibishu- Michipicoten Greenstone Belt Survey Boundary
Provincial and National Park Boundaries
Eagle River Gold Mine
0
10
Kilometres
48° 24'
Charbonneau Twp.
Obatanga Provincial Park
17
Dahl Twp
Chapais Twp.
Keating Twp.
Killins Twp.
Iron Lake
Kabenung Lake
Knowly Twp
Levesque Twp.
Macaskill Twp
Legarde Twp.
University River
Pukaskwa National Park
Pukaskwa River
St. Germain Twp.
Warpula Twp.
Andre Twp.
Homer Twp.
East Pukaskwa River
Mishibishu Lake
Mine Road
Marjory Lake
85° 55'
48° 00'
Loon Lake
Groseilliers Twp.
Franchere Twp.
Bostwick Twp
Lake Superior
84° 55'
47° 55'
Quaternary
Discontinuous thin drift/ Bedrock
Till
Glaciofluvial ice-contact deposits
Glaciofluvial outwash deposits
Glaciolacustrine deposits
Organic deposits
Fluvial deposits

Figure 3. Generalized Quaternary geology, Mishibishu Lake study area (after Barnett et al. 1991).

Sample Preparation and Analytical Methods

Lake sediment samples were placed in breathable fabric bags and allowed to partially air dry prior to shipment to the laboratory. The samples were then freeze dried (to retain volatile elements), partially pulverized in a ceramic ring and puck pulverizer and sieved to obtain the -80 mesh (<177 µm) size fraction. Laboratory analysis included nitric-aqua regia digestion of 1 gm of sample material followed by inductively coupled plasma-mass spectrometry (ICP-MS) and inductively coupled plasma-optical emission spectroscopy (ICP-OES) to determine approximately 50 trace elements. Nitric acid-aqua regia digestion attacks all sample matrix constituents, except silicate minerals, and therefore is considered a nonselective, relatively strong partial extractant (Dyer 1999).

Approximately 15 gm of sample pulp were pressed into briquettes and analyzed by instrumental neutron activation analysis (INAA) for a suite of 34 elements.

Laboratory analysis for Pt, Pd plus Au was accomplished by lead fire assay followed by an ICP-MS finish. Sample pulp weights between 3 and 10 gm were analyzed in 3 batches: 1) 10 gm samples; 2) >5 to <10 gm samples; and 3) 3 to 5 gm samples. The majority (85%) of samples contained 10 gm of material which enabled detection limits for Au, Pt and Pd of 3, 0.3 and 0.3 ppb respectively. Samples with less than 10 gm of material have slightly higher detection limits (Appendix C). For the purposes of calculations and quality control plots, all samples were treated as if they weighed 10 gm. A total of 1329 samples were submitted for ICP and INAA analytical methods with sufficient sample pulp left over to analyze 1296 of these for the fire assay/ICP-MS technique.

Quality control was monitored through the use of sample pulp duplicates and certified reference materials. Loss-on-ignition (LOI) was determined at 500°C, using an automated furnace gravimetric technique.

Water samples were passed through 0.45 µm syringe filters and acidified to 1% ultrapure nitric acid within 24 hours of collection. Analysis of water includes direct aspiration ICP-MS to determine approximately 50 elements including major cation and anion species. Quality of the analyses was monitored through the use of sample duplicates and certified reference standard SLRS-4.

Quality Control Results

LAKE SEDIMENTS

Table 1 contains a summary of the elements analyzed from the lake sediments in the study area. The statistics include median, range, coefficients of variation for the certified reference material and the estimates of precision obtained from sample duplicates. Quality control of the analytical precision and accuracy of the data was maintained using CANMET certified standard reference material (LKSD-1 and LKSD-4) and sample pulp duplicates randomly distributed throughout the sample sequence. A complete listing of all the geochemical data used to prepare this table is contained in the Miscellaneous Release-Data (MRD-66), published separately from this report.

Table 1. Mishibishu Lake area survey, lake sediment dataset, summary of elements analyzed by ICP, INAA, FA and quality control data, including estimates of precision.

Element	Analytical Method	Units	MDL	Lake Sediment (n=1329)				LKSD-1 Reference Standard (n=20)			LKSD-4 Reference Standard (n=19)		
				Median	Range		Estimated Precision	Certified Value	Mean Q.C. Result	Coefficient of variation (%)	Certified Value	Mean Q.C. Result	Coefficient of variation (%)
					Min	Max							
Ag	ICP-MS	ppm	0.02	0.12	<0.02	1.01	±0.03	0.6	0.65	11.7	0.2	0.24	19.8
Al	ICP-OES	ppm	30	12504	58	47779	±3187	41300	4318	8.5	31200	12357	6.2
As	INAA	ppm	1	2	<1	280	±2	40	40	4.6	16	17	8.4
Au	INAA	ppb	1	1	<1	72	±3	5	4	65.6	2	3	55.3
Au	FA	ppb	3	<3	<3	49	±5	5	10	183.0	2	2	61.0
Ba	ICP-MS	ppm	5	65	6	453	±15	430	93	6.6	330	140	8.4
Br	INAA	ppm	1	24	5	110	±12	11	11	11.8	49	50	10.5
Ca	ICP-OES	ppm	20	7469	1373	137273	±1554	77200	61389	21.5	12900	9890	6.6
Cd	ICP-MS	ppm	0.5	1.0	<0.5	7.5	±0.3	1.2	1.6	7.6	1.9	2.0	8.1
Ce	ICP-MS	ppm	0.01	36.08	<0.01	226.12	±6.07	27	17.77	9.2	48	40.28	8.2
Co	ICP-MS	ppm	1	5	<1	46	±1	9	8	9.5	11	9	9.7
Cr	ICP-OES	ppm	4	16	<4	193	±6	12	7	34.2	21	16	11.7
Cs	ICP-MS	ppm	0.01	0.78	0.14	2.72	±0.16	1.5	0.49	8.4	1.7	1.06	10.7
Cu	ICP-MS	ppm	2	26	5	245	±9	44	44	7.7	30	32	9.6
Dy	ICP-MS	ppm	0.01	1.64	0.24	10.96	±0.43	3.4	1.78	7.9	3.7	2.97	6.6
Er	ICP-MS	ppm	0.01	0.75	0.13	5.08	±0.19	-	0.97	10.3	-	1.65	7.8
Eu	ICP-MS	ppm	0.01	0.70	0.07	4.32	±0.15	0.9	0.47	11.2	1.1	0.88	8.1
Fe	ICP-OES	ppm	5	5318	55	215987	±1231	18000	20339	5.5	27000	27518	6.3
Ga	ICP-MS	ppm	1	2	<1	8	±1	-	2	11.8	-	4	11.3
Gd	ICP-MS	ppm	0.01	2.78	0.01	33.04	±0.66	-	2.32	10.3	-	3.99	9.6
Hf	INAA	ppm	0.5	2.2	0.7	8.2	±1	3.6	4.3	6.3	2.8	3.4	8.0
Ho	ICP-MS	ppm	0.01	0.29	0.03	2.10	±0.09	-	0.35	11.2	-	0.58	11.1
K	ICP-OES	ppm	100	263	<100	800	±99	9100	403	10.3	6600	861	7.3
La	ICP-MS	ppm	0.01	21.09	3.42	161.23	±4.18	16	10.39	8.3	26	21.76	9.3
Lu	ICP-MS	ppm	0.01	0.08	<0.01	0.82	±0.06	0.4	0.13	16.1	0.5	0.24	13.7
Mg	ICP-OES	ppm	20	1538	98	13760	±309	10300	7237	5.3	5400	4443	6.1
Mn	ICP-OES	ppm	1	71	2	377832	±13	460	456	5.8	430	444	6.5
Mo	ICP-MS	ppm	1	<1	<1	30	±1	12	10	6.2	2	2	11.9
Na	ICP-OES	ppm	10	44	<10	683	±27	14800	246	15.7	5200	181	17.6
Nb	ICP-MS	ppm	0.02	0.55	0.07	1.44	±0.12	7	0.71	23.9	9	1.23	13.1
Nd	ICP-MS	ppm	0.01	19.40	2.92	203.62	±3.87	16	11.92	8.3	25	22.21	8.5
Ni	ICP-MS	ppm	5	14	<5	115	±4	11	13	11.8	32	32	9.8
P	ICP-OES	ppm	50	772	<50	3156	±173	900	821	5.4	1300	1441	6.3
Pb	ICP-MS	ppm	0.1	6.8	0.9	47.8	±1.5	84	77.6	8.0	93	88.7	8.5
Pd	FA	ppb	0.3	<0.3	<0.3	11.7	±0.8	-	1.1	108.3	-	1.1	114.3
Pr	ICP-MS	ppm	0.01	5.14	0.73	53.43	±1.05	-	2.92	8.0	-	5.68	9.0
Pt	FA	ppb	0.3	0.5	<0.3	5.9	±0.5	-	0.4	107.3	-	0.9	30.3
Rb	ICP-MS	ppm	0.01	3.59	0.41	11.20	±0.85	24	3.54	9.2	28	10.20	9.2
S	ICP-OES	ppm	30	3545	<30	56096	±644	15700	17011	5.7	9900	10167	6.1
Sb	INAA	ppm	0.1	0.2	<0.1	2.0	±0.2	1.2	1.2	8.6	1.5	1.9	12.1
Sc	ICP-MS	ppm	0.5	1.5	<0.5	13.8	±1.5	9	2.8	22.5	7	4.1	15.9
Se	INAA	ppm	2	<2	<2	7	±2	-	<2	21.3	-	<2	46.6
Sm	ICP-MS	ppm	0.01	3.32	0.42	31.89	±0.84	4	2.56	8.9	5	4.22	9.1
Sr	ICP-MS	ppm	0.2	20.5	2.8	295.1	±4.4	250	67.7	7.9	110	39.9	9.4
Tb	ICP-MS	ppm	0.01	0.35	0.04	3.87	±0.11	0.6	0.32	13.5	1.2	0.55	11.2
Th	ICP-MS	ppm	0.02	0.28	<0.02	11.41	±0.48	2.2	1.39	19.3	5.1	1.9	10.5
Ti	ICP-OES	ppm	3	147	<3	559	±38	3010	348	13.5	2270	465	8.2
Tl	ICP-MS	ppm	0.05	0.10	<0.05	1.00	±0.03	-	0.21	4.9	-	0.41	7.9
Tm	ICP-MS	ppm	0.01	0.09	<0.01	0.75	±0.07	-	0.13	19.8	-	0.23	17.5
U	ICP-MS	ppm	0.02	1.15	0.16	40.96	±0.64	9.7	8.59	7.7	31	29.41	7.4
U	INAA	ppm	0.5	1.2	<0.5	32.0	±0.6	9.7	8.3	10.9	31	28.6	8.8
V	ICP-OES	ppm	5	14	<5	94	±3	27	24	7.2	32	35	8.4
W	ICP-MS	ppm	0.05	0.08	<0.05	2.55	±0.11	<4	0.64	14.4	<4	0.24	26.4
Y	ICP-MS	ppm	0.5	8.1	1.4	60.2	±1.8	19	10.6	7.4	23	17.3	8.1
Yb	ICP-MS	ppm	0.01	0.60	0.11	4.80	±0.19	2	0.87	9.3	2	1.58	7.6
Zn	ICP-MS	ppm	5	79	11	942	±18	337	326	7.0	189	190	8.9
Zn	ICP-OES	ppm	2	83	<2	922	±18	337	344	5.8	189	200	6.8
Zr	ICP-MS	ppm	1	<1	<1	15	±1	134	2	20.7	105	<1	43.0
LOI	Grav.	%	0.01	46.25	10.91	91.81	±1.98	23.5	22.87	1.4	40.8	40.69	1.1

Notes:

1. ICP-MS= Inductively Coupled Plasma Mass Spectroscopy. (aqua-regia digestion)
2. ICP-OES= Inductively Coupled Plasma Optical Emission Spectroscopy. (aqua-regia digestion)
3. INNA= Instrumental neutron activation analysis.
4. FA= Fire assay with ICP-MS finish
5. MDL=method detection limit.
6. Estimated precision at 95% confidence level; ICP-MS, ICP-OES, INAA and FA elements based on results of 78 duplicate pairs.
7. Q.C. Result = Average value obtained, Mishibishu Lake area dataset.
8. Coefficient of variation at one standard deviation (68% confidence Level)
9. LKSD-1 and LKSD-4 are Canmet certified reference materials; For ICP elements, quoted reference values for Ag, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, Pb, V, Zn determined by partial digestion; all other ICP elements determined with total digestion. For INAA elements, quoted reference values for LKSD-1 and LKSD-4 are from total digestion methods.

The quality of the lake sediment data varies from element to element but, in general, is very good. The elements summarized in Table 1 are the best analytical results obtained from the various assay methods. Quality control (QC) assessment of the ICP-MS data indicated significant problems with Be, Li, Sn and Ta. These elements were deemed unsuitable for publication and deleted from the dataset. Minor analytical drift was detected in Ga, Gd, Ho, Lu, Nb, Sc, Tb, Tm, W, Y and Zr. Each of these elements contain specific areas of minor drift in the sample sequence and caution should be exercised when determining anomalous concentrations from these elements. All other ICP-MS data included in Table 1 are of very good quality.

The overall quality of the ICP-OES data is very good. Sodium and titanium contain areas of minor drift and should be treated with some caution. Beryllium, lithium and molybdenum contained significant quality control problems. These elements have been removed from the ICP-OES dataset.

INAA elements included in Table 1 are of good quality. Quality control methods detected some analytical drift for gold in the INAA data, but the overall precision of the gold data is fairly good and typical for this method.

Quality control methods for Pt, Pd and Au from the fire assay/ICP-MS data indicated some problems with the precision and accuracy of the data. The problem with the accuracy of the data can be seen in the high coefficients of variations (Table 1) for the lake sediment standards inserted into the sample sequence. The estimates of precision for Au, Pt and Pd are ±5, ±0.5 and ±0.8 ppb respectively. Although these estimates appear to be quite good, the maximum values for Au, Pt and Pd are 49, 5.9 and 11.7 ppb respectively. Background values in the dataset are very low with 75% of the samples being below 1 ppb for Pt and Pd and 90 % of the data being below the detection limit for Au. Therefore, some caution should be used when interpreting the FA/ICP data.

Gold analyses obtained from both the INAA and the FA/ICP-MS methods have been included in this report. The INAA results for gold indicated a somewhat better estimate of precision and lower coefficients of variation for lake standards than those obtained from the FA/ICP method. There is a general corroboration between gold assays from the 2 methods, although, minor analytical drift and inhomogeneity (nugget effect) can produce gold values that are not corroborated between the 2 methods. The lack of corroboration in elevated gold values between the 2 analytical methods should not be considered any less reliable than a direct correlation of values, since the reproducibility of gold can be somewhat problematic.

LAKE WATER

Analytical precision and accuracy of the water data was assessed using Saint Lawrence River Standard reference material (SLRS-4) and sample duplicates randomly inserted into the sample series. Table 2 contains some basic statistical data listing the median, range, estimated precision and coefficient of variation for the SLRS-4 for each of the elements analyzed.

The quality control methods detected problems with the accuracy and precision of several elements analyzed in the lake water dataset. Analytical results for Ag, Be, Eu, Ga, Gd, Hf, Hg, Sc, Ta, Tb, Tl and W have been deemed unacceptable and have not been included in MRD-66. Twelve samples (211 to 223) were noted to contain erroneous elevated concentrations in all elements and the values were stripped from the dataset. The overall quality of the analytical results for the lake water dataset is poor and extreme care should be exercised in determining anomalous concentrations for some elements. In general, problems with analytical drift and precision are reflected in the high estimates of precision and

Table 2. Mishibishu Lake area survey, lake waters dataset, summary of elements analyzed by ICP-MS and quality control data, including estimates of precision.

				Lake Water (n=1384)				SLRS-4 Reference Standard (n=78)		
Element	Analytical Method	Units	MDL	Median	Range		Estimated Precision	Certified Value	Mean Q.C. Result	Coefficient of variation (%)
					Min	Max				
Al	ICP-MS	ppb	0.2	203.9	<0.2	1551.7	**±302.9**	54	60.0	**51.9**
Au	ICP-MS	ppb	0.01	<0.01	<0.01	1.47	**±0.02**	n/a	<0.01	**31.5**
Ba	ICP-MS	ppb	0.3	7.2	<0.3	64.4	**±4.3**	12.2	12.3	**38.3**
Ca	ICP-MS	ppb	60	3347	181	53776	**±8317**	6200	6230	**41.2**
Cd	ICP-MS	ppb	0.005	0.036	<0.005	1.441	**±0.09**	0.012	0.013	**150.9**
Ce	ICP-MS	ppb	0.001	0.353	<0.001	4.201	**±0.283**	n/a	0.356	**37.5**
Co	ICP-MS	ppb	0.02	0.11	<0.02	2.51	**±0.19**	0.033	0.05	**60.3**
Cr	ICP-MS	ppb	0.03	0.37	<0.03	6.34	**±0.45**	0.33	0.31	**50.2**
Cs	ICP-MS	ppb	0.005	0.017	<0.005	0.337	**±0.015**	n/a	0.007	**70.4**
Cu	ICP-MS	ppb	0.2	1.5	0.3	160.7	**±7**	1.81	2.7	**141.7**
Dy	ICP-MS	ppb	0.001	0.019	<0.001	0.184	**±0.014**	n/a	0.021	**39.2**
Er	ICP-MS	ppb	0.001	0.011	<0.001	0.090	**±0.009**	n/a	0.012	**43.4**
Fe	ICP-MS	ppb	1	83	<1	1202	**±214**	103	96	**47.6**
Ho	ICP-MS	ppb	0.001	0.004	<0.001	0.092	**±0.003**	n/a	0.004	**39.3**
La	ICP-MS	ppb	0.001	0.216	<0.001	2.297	**±0.162**	n/a	0.287	**39.4**
Li	ICP-MS	ppb	0.02	0.35	0.06	1.30	**±0.27**	n/a	0.49	**39.7**
Lu	ICP-MS	ppb	0.001	0.002	<0.001	0.075	**±0.003**	n/a	0.002	**46.0**
Mg	ICP-MS	ppb	15	565	110	9718	**±1045**	1600	1518.0	**42.6**
Mn	ICP-MS	ppb	0.2	12.3	<0.2	181.0	**±13.1**	3.37	4.7	**147.9**
Mo	ICP-MS	ppb	0.3	<0.3	<0.3	2.3	**±0.1**	0.21	0.23	**21.3**
Nb	ICP-MS	ppb	0.02	<0.02	<0.02	1.04	**±0.03**	n/a	0.01	**41.3**
Nd	ICP-MS	ppb	0.003	0.200	<0.003	2.182	**±0.134**	n/a	0.254	**38.9**
Ni	ICP-MS	ppb	0.4	0.5	<0.4	32.5	**±1.2**	0.67	0.90	**46.0**
Pb	ICP-MS	ppb	0.01	0.21	<0.01	3.07	**±0.41**	0.086	0.09	**108.6**
Pr	ICP-MS	ppb	0.001	0.053	<0.001	0.568	**±0.039**	n/a	0.067	**38.5**
Rb	ICP-MS	ppb	0.02	0.92	0.08	4.43	**±0.53**	n/a	1.50	**31.4**
Sb	ICP-MS	ppb	0.03	0.05	<0.03	201.01	**±0.05**	0.23	0.22	**39.6**
Sm	ICP-MS	ppb	0.001	0.034	<0.001	0.356	**±0.031**	n/a	0.052	**40.6**
Sn	ICP-MS	ppb	0.02	<0.02	<0.02	74.58	**±0.06**	n/a	0.02	**119.9**
Sr	ICP-MS	ppb	1	11	3	116	**±10**	26.3	28	**38.7**
Th	ICP-MS	ppb	0.02	0.02	<0.02	0.13	**±0.02**	n/a	<0.02	**26.4**
Ti	ICP-MS	ppb	0.01	0.86	<0.01	13.44	**±1.55**	n/a	1.14	**38.1**
Tm	ICP-MS	ppb	0.001	0.002	<0.001	0.102	**±0.002**	n/a	0.002	**41.5**
U	ICP-MS	ppb	0.001	0.017	<0.001	0.547	**±0.065**	0.05	0.042	**43.1**
V	ICP-MS	ppb	0.01	0.28	0.03	1.71	**±0.27**	0.32	0.35	**38.1**
Y	ICP-MS	ppb	0.001	0.115	<0.001	1.011	**±0.069**	n/a	0.130	**37.6**
Yb	ICP-MS	ppb	0.001	0.010	<0.001	0.077	**±0.007**	n/a	0.011	**37.0**
Zn	ICP-MS	ppb	0.5	5.4	<0.5	67.4	**±11.8**	0.93	3.00	**79.7**
Zr	ICP-MS	ppb	0.1	0.1	0.1	53.3	**±0.4**	n/a	0.1	**38.0**

Notes:
1. ICP-MS= Inductively Coupled Plasma Mass Spectroscopy.
2. MDL = method detection limit
3. Estimated precision at 95% confidence level; based on results of 78 duplicate pairs.
4. SLRS-4 = National Research Council, Saint Lawrence River Standard #4: certified reference standard
5. Coefficient of variation at one standard deviation (68% confidence level)

high coefficients of variations included in Table 2. An area of analytical drift common to all elements in the dataset occurs from sample 99-JJ-1425 to the end of the sample sequence. Samples within this sequence may contain lower assay values. Elements with specific problem areas but with an overall acceptable analytical quality include Al, Ba, Ce, Co, Cs, Dy, Ho, Lu, Mn, Nb, Nd, Pr, Rb, Sb, Sm, Sr, Th, Ti, Tm, U, V, Y, and Yb. All other elements should be treated with caution when using the data for interpretation purposes. Gold in lake water has been included in this report, but some caution should be exercised when using this data for interpretation purposes. The gold values reported from the lake waters are at or near the detection limit for this assay method. The lake water reference material was almost exclusively below detection level and quality control is difficult to assess. The data does appear to indicate some analytical drift and elevated gold values from the beginning of the sample series to sample 99-JJ-225. Some of the anomalous gold values in the lake water dataset contain coincident lake sediment gold values and are discussed below.

Discussion of Regional Geochemical Patterns

Proportional dot maps for pH, conductivity, lake depth, Ca and Mg in lake waters are contained in Appendix A. Appendix B contains lake sediment proportional dot plots for As, Ba, Ca, Cr, Co, Cu, Au (both INAA and FA/ICP), Fe, Pb, LOI, Mg, Mn, Mo, Ni, Pd, Pt, total REE, Ag, Ti, W, U, V and Zn. Lake sediment samples with loss-on-ignition of less than 10% were not included on these maps but are included in the MRD-66 digital data release. Selected analytical data for lake sediment samples is listed in Appendix C and all of analytical data is included in the digital (MRD-66) data release.

The mean values for pH and conductivity in lake waters collected in the survey are 6.29 and 27.4 µS/cm, respectively. The regional patterns of pH and conductivity display definite patterns that can be attributed to the underlying geology. Many of the acidic lakes are underlain by felsic intrusive rocks. The Bowman Lake, the Floating Heart and the southern part of the Pukaskwa batholiths along with the Central Pluton all contain acidic lake waters. These areas also contain darker coloured waters; this may indicate that higher levels of fulvic and humic acids and tannins are responsible for the more acidic conditions. The pH of lakes within the Michipicoten supracrustal assemblages is near neutral with some slightly alkalic lakes occurring along the middle of the belt. The conductivity along this trend is also relatively high. These higher values along the belt are probably attributable to dissolved minerals (e.g., carbonates) derived from the glaciofluvial deposits covering this part of the study area. The proportional dot plots of calcium and magnesium in lake waters also show anomalous values along this structure. The pH of lake waters within the Mishibishu greenstone belt show neutral to slightly acidic values in the eastern portion of the belt and slightly more alkalic values for the western portion of the belt. This pattern is also evident in the conductivity of lake waters with relatively higher values in the western portion of the greenstone belt. There are no significant Quaternary deposits in the western portion of the belt to affect the pH and conductivity of lakes in this area. The higher values in the western portion of the belt may indicate that pervasive carbonatization of the host rocks is more intense in the west than in the eastern part of the greenstone terrane. The western part of the Mishibishu greenstone belt contains more and larger synvolcanic gabbroic intrusions than the eastern portion of the belt.

Arsenic in lake sediments shows an interesting correlation with regionally extensive shear zones within the Mishibishu greenstone belt. The East Pukaskwa (EPDZ), Rook Lake (RLDZ) and the eastern portion of the Mishibishu Lake (MDZ) deformation zones all contain anomalous arsenic in lake sediments. Arsenopyrite is observed with gold mineralization in some quartz veining from the Mishibishu area.

Felsic intrusions within the study area are well defined by various elevated to anomalous concentrations of U, rare earth elements (REE), Ba, Al, V and Mo. Anomalous concentrations of uranium in lake sediments outline the Central Pluton and the Bowman Lake Batholith in the Mishibishu greenstone belt. Rare earth element values define the Central Pluton, the Kabenung Lake Stock and the Pukaskwa Batholith at the contact with the northern portion of the Michipicoten greenstone belt. The U and REE values obtained from the lake sediments are definitely related to the underlying bedrock geology. However, the overall concentrations of the metals are relatively low and may not represent an economic potential in these areas. The maximum value for U is 32 ppm (Table 1) and similar low values were obtained for the various rare earth elements.

Gabbroic intrusions in the Loon Lake area of the Mishibishu greenstone belt contain several anomalous clusters of Pt and Pd in lake sediments. The Pt and Pd values in the Loon Lake area appear to be bedrock related. Elsewhere in the study area, the Pt and Pd show little correlation with known bedrock geology. This is in part due to the relatively low values obtained in the survey with the maximum values of Pt and Pd attaining 5.9 and 11.7 ppb respectively. The values for these metals are at or near the detection levels for these elements and many of the "anomalous" concentrations are probably related to background noise and indicate a relatively low exploration potential. Many of the relatively higher values for Pt and Pd occur in the Loon Lake area, but this area is currently withdrawn from staking.

Copper in lake sediments shows an interesting correlation with known copper mineralization in a portion of the Michipicoten greenstone belt. In an area west of Kabenung Lake, anomalous Cu occurs in lake sediments parallel to known chalcopyrite occurrences. A northeast trending structure contains sporadic, narrow lenses of pyrite and chalcopyrite along a sheared and silicified contact zone between metasedimentary and metavolcanic rocks (Bennett and Thurston 1977). The zone extends for 3 to 4 km with some of the best assays ranging from 0.5% to 3.56% Cu over very narrow widths. Although the lake sediment anomalies are related to the known mineralization in the area, the potential for economic copper mineralization is considered low.

Description of Selected Anomalous Areas

Ten areas containing anomalous precious and base metal concentrations are illustrated on Figure 4 and are described below. The areas are loosely ranked in order of exploration interest based on multi-element or multi-site anomalies in areas of favourable geology. The first 7 areas are considered the most interesting prospects; however, much of the area is now withdrawn from staking (Figure 5). The term "elevated" is used to denote assays above the 90th percentile, "anomalous" for assays above the 95th percentile and "highly anomalous" for assays greater than the 98th percentile.

There are a number of factors to be considered when using this geochemical data to assess an anomalous value or area. False anomalies can be generated by both natural environmental conditions and/or by analytical or sample preparation errors. The scavenging effect of iron and manganese hydroxides in chemically active surface sediment environments is one source of false trace element anomalies. The co-precipitation of trace elements such as Zn, Co, Ni, Pb and Mo in the surface environment (0 to 10 cm below the lake bottom) with Fe and Mn can lead to elevated values within some lakes. Sampling techniques employed by the OGS minimize the effect of this scavenging by sampling the deeper (>20 cm) lake sediments, but some mixing may be unavoidable. Some multi-site anomalies can be the result of improper preparation or analytical analyses. The samples collected in the field are prepared and analyzed in sequence. Therefore, it is possible that some mixing between adjacent samples can occur during preparation or analysis and result in an apparent spatial grouping in one or more elements. Although every effort is made to detect and prevent these kinds of errors, the reader is advised to review all data when assessing the validity of an anomaly.

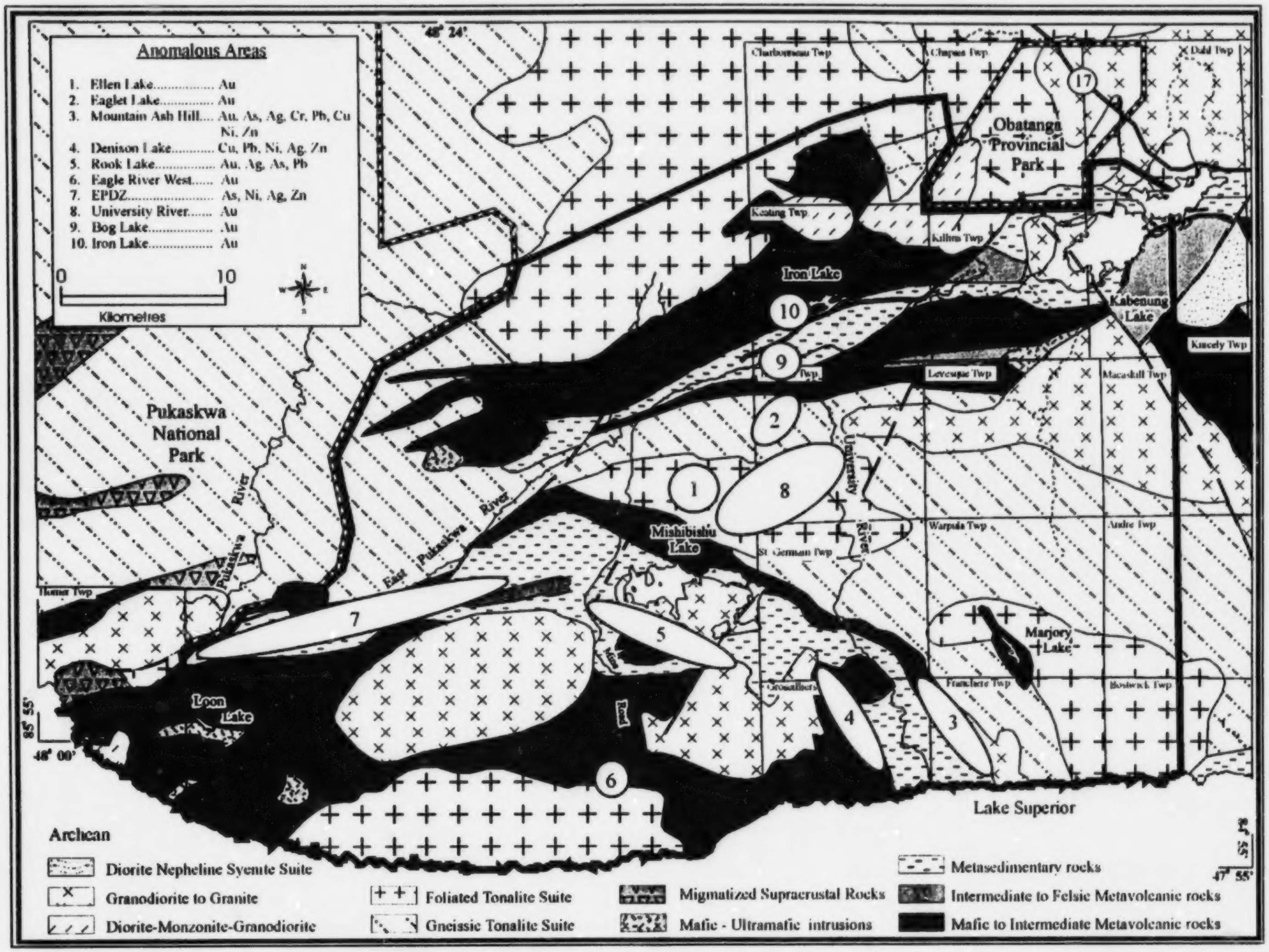
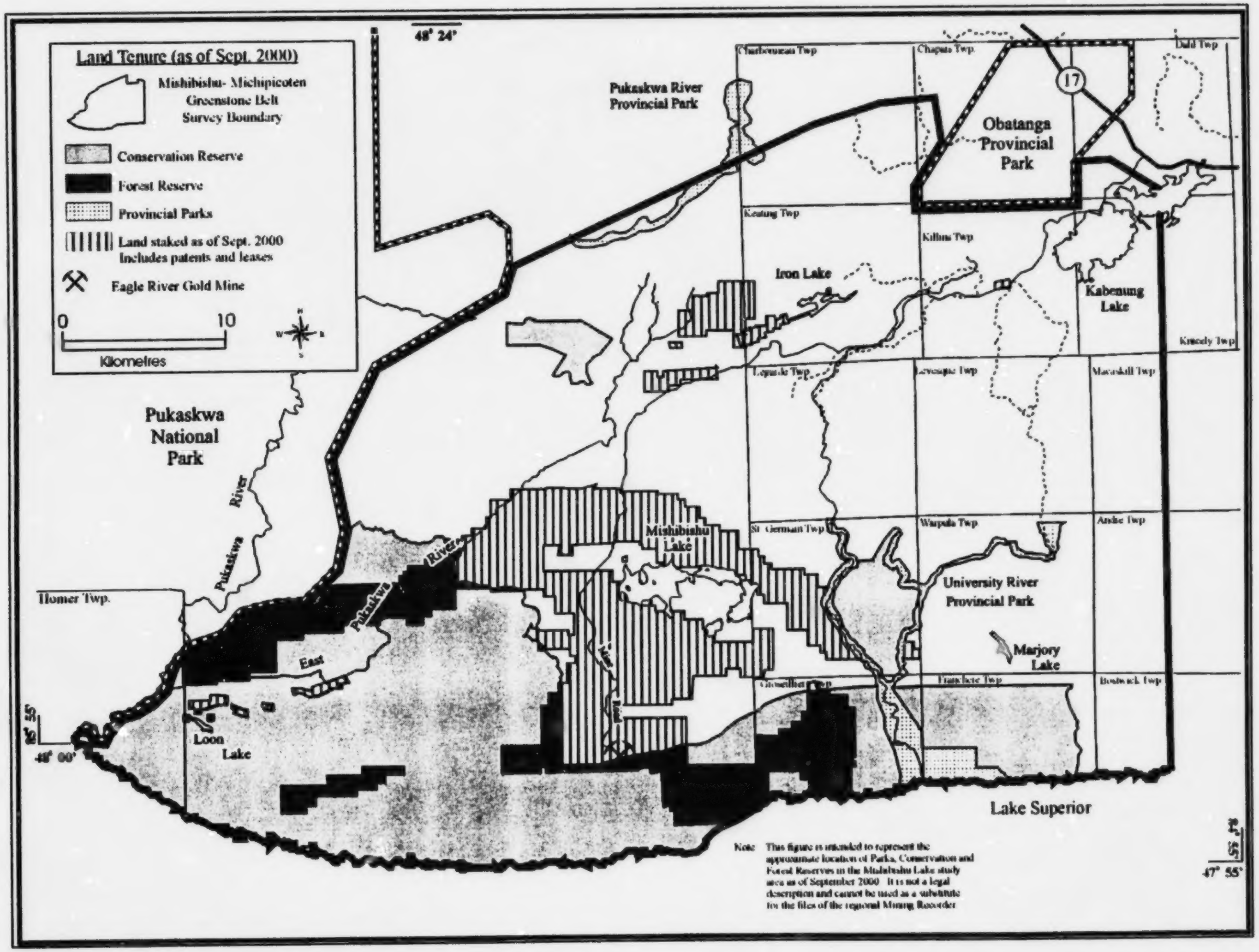

Anomalous Areas
1. Ellen Lake................ Au
2. Eaglet Lake.............. Au
3. Mountain Ash Hill.... Au, As, Ag, Cr, Pb, Cu, Ni, Zn
4. Denison Lake........... Cu, Pb, Ni, Ag, Zn
5. Rook Lake................ Au, Ag, As, Pb
6. Eagle River West...... Au
7. EPDZ........................ As, Ni, Ag, Zn
8. University River....... Au
9. Bog Lake.................. Au
10. Iron Lake................. Au
0
10
Kilometres
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Pukaskwa National Park
Obatanga Provincial Park
Charbonneau Twp
Chapais Twp
Dald Twp
Keating Twp
Killins Twp
Iron Lake
Kabenung Lake
Kneely Twp
Levesque Twp
Macaskill Twp
Twp
University River
Pukaskwa River
East Pukaskwa River
Mishibishu Lake
St. Germain Twp
Warpula Twp
Andre Twp
Homer Twp
Loon Lake
Road
Mine
Grosaillers
Franchere Twp
Bostwick Twp
Marjory Lake
Lake Superior
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks
17

Figure 4. Location of geochemically anomalous areas.


Land Tenure (as of Sept. 2000)
Mishibishu- Michipicoten Greenstone Belt Survey Boundary
Conservation Reserve
Forest Reserve
Provincial Parks
Land staked as of Sept. 2000 Includes patents and leases
Eagle River Gold Mine
0
10
Kilometres
48° 24'
48° 00'
85° 35'
84° 55'
47° 55'
Pukaskwa River Provincial Park
Obatanga Provincial Park
17
Pukaskwa National Park
Pukaskwa River
Iron Lake
Kabenung Lake
Mishibishu Lake
University River Provincial Park
Marjory Lake
East
Loon Lake
Mine Road
Lake Superior
Charbonneau Twp
Chapais Twp
Dahl Twp
Keating Twp
Killins Twp
Kneeely Twp
Lepinski Twp
Levesque Twp
Macaskill Twp
St. Germain Twp
Warpula Twp
Anahe Twp
Groseilliers Twp
Franchere Twp
Bostwick Twp
Homer Twp.

Note This figure is intended to represent the approximate location of Parks, Conservation and Forest Reserves in the Mishibishu Lake study area as of September 2000. It is not a legal description and cannot be used as a substitute for the files of the regional Mining Recorder

Figure 5. Land tenure map of the Mishibishu survey area as of September 2000.

The greatest economic potential in the Michipicoten and Mishibishu greenstone belts is related to gold. The gold mineralization, in the study area, is localized within regionally extensive brittle-ductile shear zones. The shear zones are coincident with major lithological boundaries and gold mineralization is hosted by all lithologies. Alteration mineral assemblages associated with the gold mineralization can consist of several types including:sericite; calcite; ankerite; biotite, chlorite; K and Na feldspars; sulphides; and hematite. The gold mineralization occurs predominantly in quartz veins and can contain variable amounts of pyrite, pyrrhotite, arsenopyrite, galena, chalcopyrite, sphalerite or green mica.

The areas discussed below are considered the most significant gold anomalies obtained in the survey area. There are several multi-site/multi-element anomalies with low or no gold values that are not discussed. In some instances, using favourable geology and structure, it may be possible to use pathfinder elements to outline prospective areas where gold values are low.

AREA 1: ELLEN LAKE: Au

The highest lake sediment gold value of 72 ppb obtained from the INAA method (site 144) occurs in a small lake about 1 km southeast of Ellen Lake. A corroborating anomalous gold value of 49 ppb was returned from the FA/ICP method. No other anomalous concentrations of metals occur in the lake sediment sample. The sediment was collected from a deep lake (15 m) with a high organic content and no indication of metal scavenging. This lake also contains the highest lake water gold value obtained in the survey (1.47 ppb). A narrow lake located about 500 m north and down drainage from this Au anomaly contains elevated Pt, weakly anomalous W and highly anomalous Mo and As in lake sediment. Lake sediment sampling by the GSC during the summer of 1978 sampled this lake but gold values were less than detection (Friske et al. 1991a). The GSC did obtain a gold value of 4 ppb in a small lake about 1.5 km northwest of this site.

The area is underlain by foliated tonalitic rocks of the Pukaskwa Batholith and lies about 4 km north of the Mishibishu Lake deformation zone (MDZ). This is the largest deformation zone in the Mishibishu greenstone belt. The zone is about 40 km long, up to 1.5 km wide and is host to the majority of gold showings in the belt (Reid et al. 1991). This is an interesting anomaly due the fact that 3 different assay methods returned anomalous gold values for the same sample and that gold can occur in a variety of different host rocks. Since this is a single site anomaly, some caution should be exercised and a more detailed geological compilation of the area may be warranted. The area was open for staking as of September 2000.

AREA 2: EAGLET LAKE: Au

Four lake sediment samples from the Eaglet Lake area returned weakly anomalous to anomalous values for gold (INAA). The gold values were also corroborated by the FA/ICP results and 2 of the sites contained coincident lake water gold anomalies. The GSC sampled Eaglet Lake but analytical results indicated low gold values in the sediment. Site 200, located at the north end of Eaglet Lake, also contains elevated to anomalous values of As, Fe, Zn, Mn, Pd and Pb. This sample was collected from the deep portion of the lake (20 m) and assays may be elevated do to metal scavenging. All other gold anomalies contain no other significant concentrations of other elements. This is an interesting multi-site anomaly since the anomalous samples are not sequential (sites 200, 289, 300 and 1329) and the QC data indicate no significant problems.

The Eaglet Lake area is located at the contact of mafic metavolcanic rocks of the Michipicoten greenstone belt and gneissic tonalite of the Pukaskwa Batholith. The lake occupies a topographic low that extends for several kilometres in a northeast direction. This structure crosses the granitic-metavolcanic rock contact and parallels the northeast trending set of diabase dikes in the area. Eaglet Lake may be underlain by a late structure related to the emplacement of a diabase dike. Diabase dikes are spatially associated with many gold showings in the Mishibishu greenstone belt and it has been noted that increases in Au and galena occur adjacent to these dikes within mineralized quartz vein systems. The dikes may have played a role in local remobilization and upgrading of the gold content along an earlier mineralized zone (Reid et al. 1991). As of September 2000, the area was open for staking.

AREA 3: MOUNTAIN ASH HILL: Au, As, Ag, Cr, Pb, Cu, Ni, Zn

A linear string of 5 lakes in the Mountain Ash Hill area contain weakly anomalous to anomalous values of gold (INAA) ranging from 6 to 14 ppb in sediments. Gold values in these lakes obtained by FA/ICP range from <3 to 6 ppb. These sites and others in the immediate vicinity contain elevated to highly anomalous values of As, Ca, Cr, Co, Cu, Pb, Pt, Mg, Mo, Ni, Ag, Ti and Zn in lake sediments. These 5 sites were not sampled in the GSC lake sediment program. Values for Fe and Mn are anomalous to highly anomalous in two of these lakes. A regional geochemical program in the Mishibishu Lake area also noted anomalous concentrations of Ni, Cu, Zn and Mn from bedrock samples collected from this area (Wolfe 1976).

The area is underlain by intermediate to mafic metavolcanic rocks bounded by metasedimentary rocks on the west and granodioritic intrusive rocks on the east. This trend of anomalies also coincides with the eastern Mishibishu Lake deformation zone (MDZ)). Most of the area is covered by the Lake Superior highlands conservation reserve and the University River Provincial Park and has been withdrawn from staking (Figure 5). The northern most gold anomaly at the corner of Franchere and Groseillers townships was open for staking as of September 2000.

AREA 4: DENISON LAKE: Cu, Pb, Ni, Ag, Zn

The Denison Lake area is located approximately 6 km west of the Mountain Ash Hill anomaly. The area contains a northward trending linear string of lakes with anomalous to highly anomalous values of Ag, As, Co Cr, Cu, Ni, Pb and Zn. The highest Cu, Ni and Co values obtained in the survey area are from lake sediment samples in this area. Stream sediment and bedrock samples outlined anomalous Cu and Ni values in the Denison Lake area (Wolfe 1976). The area is underlain by metasedimentary and metavolcanic rocks. Rawhide Mines Ltd. completed 7 drill holes to investigate the source of the base metal anomalies (Bennett and Thurston 1977). All of the holes intersected sheared quartz carbonate bearing metavolcanic rocks with low base metal values. Gold assays were not reported (Reid et al. 1991). Gold assays from lake sediment samples collected in the present survey returned values from below the detection level to 5 ppb. The potential for base metal sulphides in this area is low. The area is similar to the Mountain Ash Hill area where lake sediment Au anomalies occur in lakes along the Mishibishu Lake deformation zone. It is possible that a structure parallel to the MDZ occurs in the Denison Lake area. As of September 2000, most of this area was withdrawn from staking.

AREA 5: ROOK LAKE: Au, Ag, As, Pb

A string of several lakes south of Rook Lake contain anomalous gold and anomalous to highly anomalous values of Ag, As and Pb. These lakes occur along the south side of the Rook Lake deformation zone.

Gold (INAA) values of 15, 14, 10, 8 and 7 ppb were returned from lake sediment samples covering a 5 km long area south of Rook Lake. Two separate lakes returned Au (FA/ICP) values of 11 ppb. The regional lake sediment geochemical reconnaissance program conducted by the GSC obtained an elevated Au value of 6 ppb in a small lake southeast of Rook Lake. This is the same lake that returned the 7 ppb Au (INAA) value and a 6 ppb Au (FA/ICP) value in the present survey. A few lake sediment sites in this area contain elevated to highly anomalous values of Co, Cr, Mg, Ni, Ti, V and Zn. Sampling conducted by the GSC returned anomalous concentrations of As, Co, Fe, Mn, Pb, Sb and Zn from the same area. The Rook Lake shear is a zone of deformation about 8 km long and up to 1 km wide. The zone is centred in clastic metasedimentary rocks and is intruded by numerous felsic dikes and sills. The shear zone is bounded by the Mishibishu Lake Stock to the north and by mafic metavolcanic rocks to the south (Reid et al. 1991). This entire area was staked as of September 2000.

AREA 6: EAGLE RIVER WEST: Au

One small lake located about 1.5 km south of the Eagle River Gold Mine contains an anomalous Au (INAA) value of 7 ppb and a corroborating weakly anomalous Au value of 11 ppb Au (FA/ICP). This site also contains an anomalous Pb value in lake sediments. Gold mineralization at the Eagle River deposit occurs in 4 to 5 m wide lenticular, ribbon quartz veins hosted by a hornblende diorite to granodioritic stock. The quartz vein system at the deposit is part of the more regionally extensive Eagle River Deformation Zone. Galena is also known to occur in Au-bearing quartz veins at the deposit and elsewhere in the belt. The area was completely staked and withdrawn from staking as of September 2000.

AREA 7: EAST PUKASKWA DEFORMATION ZONE: As, Ni, Ag, Zn

Several discrete anomalous areas are restricted to the relatively narrow, regionally extensive, sequence of metasedimentary and metavolcanic rocks located along the northwestern edge of the Mishibishu greenstone belt. Anomalous As in lake sediments is the most regionally extensive element along this trend but, several discrete areas contain anomalies of Au, Cr, Cu, Ni, Ag and Zn. The entire area is withdrawn from staking as of September 2000.

AREA 8: UNIVERSITY RIVER: Au

Six lakes in the University River area contain FA/ICP Au anomalies. The anomalous lakes are spread over a wide area on both the east and the west sides of the river. The Au anomalies are not corroborated by the INAA results and they contain no other anomalous concentrations of any other elements. These lakes were not sampled in the GSC lake sediment survey (Friske et al. 1991a). The bedrock geology is mapped as granitoid rocks of the Pukaskwa Batholith. The anomalous samples were all prepared and analyzed in sequence and may contain anomalous Au values due to systematic analytical or sample preparation problems. The quality control methods employed by the Ontario Geological Survey detected no obvious problems with the analytical data in this sample sequence. The lack of any corroborating anomalies in other elements, the spatial occurrence of the anomalous lakes and the numerically sequential nature of the anomalies, indicate that these may be false anomalies.

AREA 9: BOG LAKE: Au

A small lake located approximately 2.5 km southwest of Iron Lake and just south of the Paint Lake road, returned a Au INAA value of 6 ppb and a Au FA/ICP value of 5 ppb. This site (1316) also returned highly anomalous As, Co, Cu, Fe, Mn, V and Zn values. The sample from this site contained some clay material and an LOI of 18%. This site maybe a false anomaly due, in part, to possible metal scavenging. Anomalous concentrations of Ni, Cu, Zn, Mn and Co in stream sediments are reported from this area (Wolfe 1976).

AREA 10: IRON LAKE: Au

One lake located west of Iron Lake returned a value of 6 ppb gold (INAA). The sample also returned highly anomalous values of Fe, Mn, Cu and Co. The site (138) is located at the contact of metasedimentary rocks/iron formation and mafic metavolcanic rocks. The high Fe and Mn content in the lake sediment may indicate potential metal scavenging processes. This may be a false anomaly.

Conclusions

The preliminary results and interpretations discussed in this report have identified a number of precious metal exploration targets. Some of these targets occur in areas of open ground. The target areas contain multi-element and multi-site anomalies, some of which are considered significant and warrant further investigation. There are a number of gold pathfinder element anomalies that occur throughout the area that have not been discussed in this report. These pathfinder element anomalies in areas of favourable geology and structure may also warrant further geological investigation.

Acknowledgments

The author would like to field assistants Dan Russell, Nick Battye, Rebecca Taylor and Francis Roy. Thanks are also extended to management and staff of River Gold Mines at the Eagle River Mine site for their hospitality, accommodations and gracious co-operation.

References

Barnett, P.J., Henry, A.P. and Babuin, D. 1991. Quaternary geology of Ontario, east-central sheet; Ontario Geological Survey, Map 2555, scale 1:1 000 000.

Bennett, G. and Thurston, P.C. 1977. Geology of the Pukaskwa River-University River area, Districts of Algoma and Thunder Bay; Ontario Division of Mines, GR153, 60p., Maps 2332 and 2333, scale 1:63 360.

Dyer, R.D. 1999. Atikokan area high density lake sediment and water geochemical survey, northwestern Ontario: New Au and PGE exploration targets; Ontario Geological Survey, Open File Report 5986, 83p.

Friske, P.W.B., Hornbrook, E.H.W., Lynch, J.J., McCurdy, M.W., Gross, H., Galletta, A.C., Durham, C.C. 1991a: National geochemical reconnaissance lake sediment and water data, Northwestern Ontario, (NTS 42C and 42F south) Geological Survey of Canada. Open File 2362.

Friske, P.W.B., Hornbrook, E.H.W., Lynch, J.J., McCurdy, M.W., Gross, H., Galletta, A.C., Durham, C.C. 1991b: National geochemical reconnaissance lake sediment and water data, Northwestern Ontario, (NTS 41K and 41N) Geological Survey of Canada. Open File 2361.

Gartner, J.F. and McQuay, D.F. 1979. Pukaskwa River area (including Michipicoten Island) (NTS 42C/SW, 42D/SE, and part of 41N/NW), Districts of Algoma and Thunder Bay; Ontario Geological Survey, Northern Ontario Engineering Geology Terrain Study 72, 15p., Map 5096, scale 1:100 000.

Ontario Geological Survey 1991a. Aggregate resources inventory of the Mishibishu Lake area, Northern Ontario; Ontario Geological Survey, Open File Report 5754, 65p.

Ontario Geological Survey 1991b. Bedrock geology of Ontario, east central sheet; Ontario Geological Survey, Map 2543, scale 1:1 000 000.

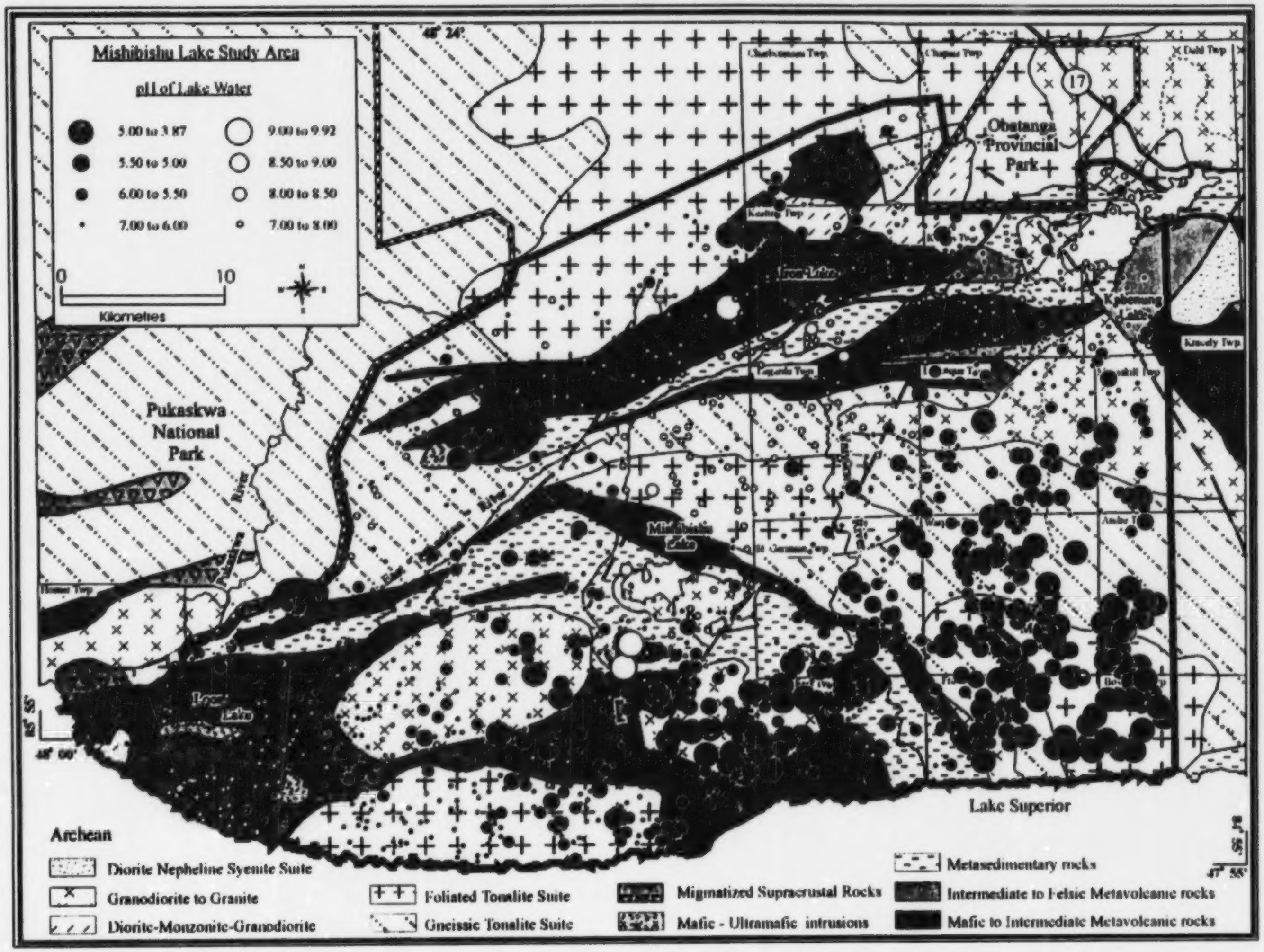
Reid, R.G., Bowen, R.P., Reilly, B.A., Logothetis, J. and Heather, K.B. 1991. Geology, structure and economic geology of the Mishibishu Lake area; Ontario Geological Survey, Open File Report 5774, 350p.

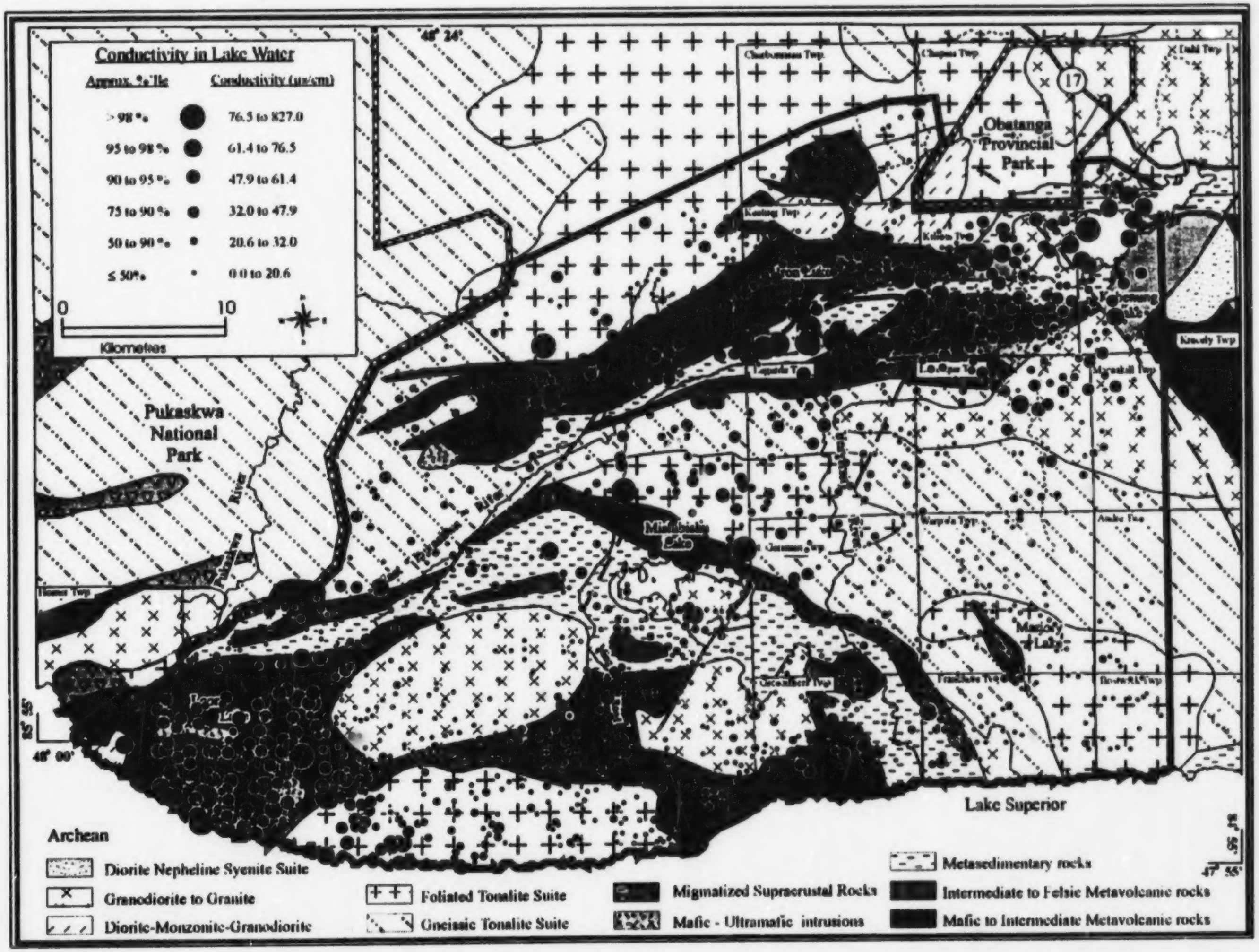
Sage, R.P. 1994. Geology of the Michipicoten greenstone belt; Ontario Geological Survey, Open File Report 5888, 592p.

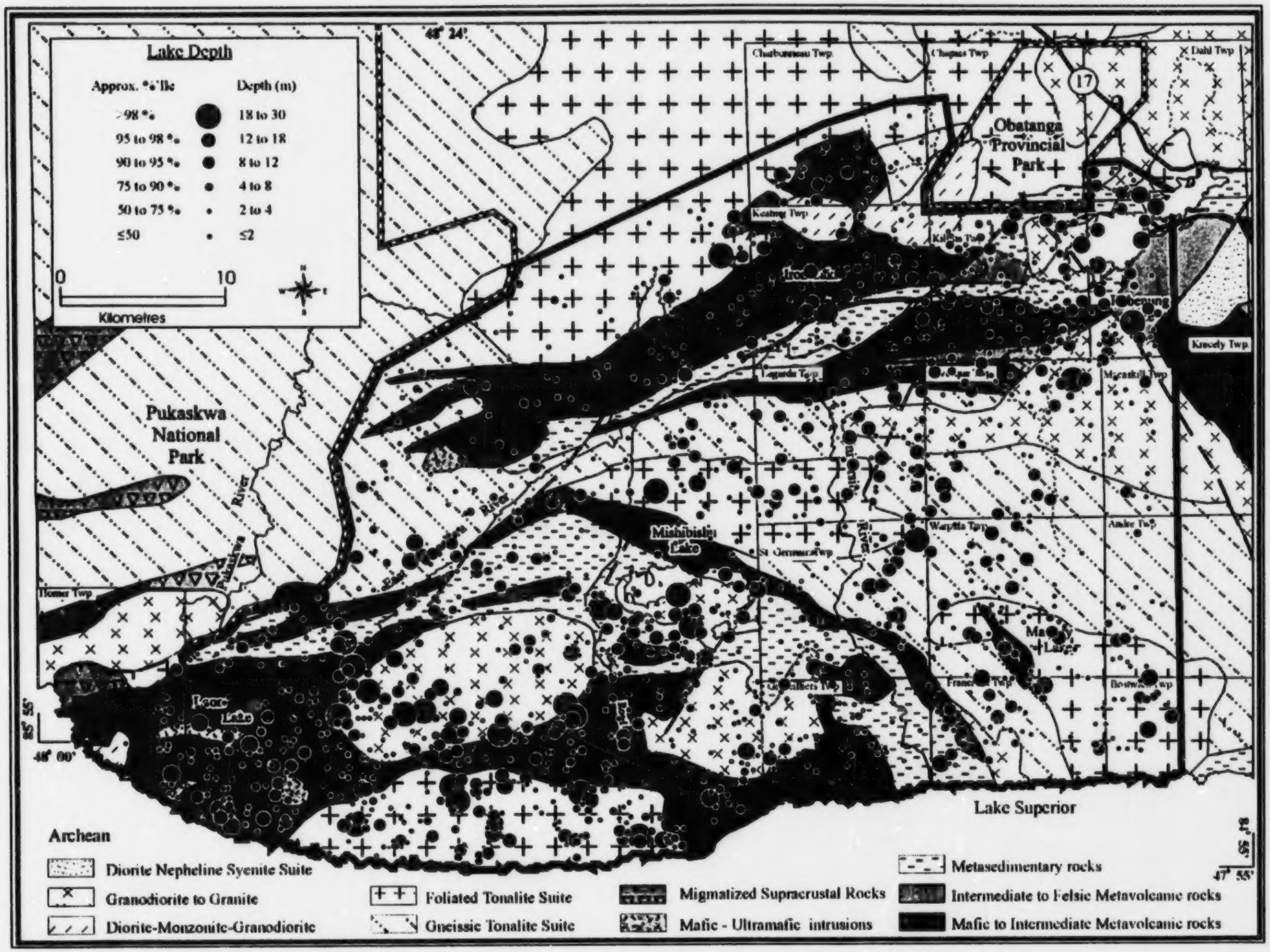
Williams, H.R., Stott, G.M., Heather, K.B., Muir, T.L. and Sage, R.P. 1991. Wawa Subprovince; *in* Geology of Ontario, Ontario Geological Survey, Special Volume 4, Part 1, p.485-539.

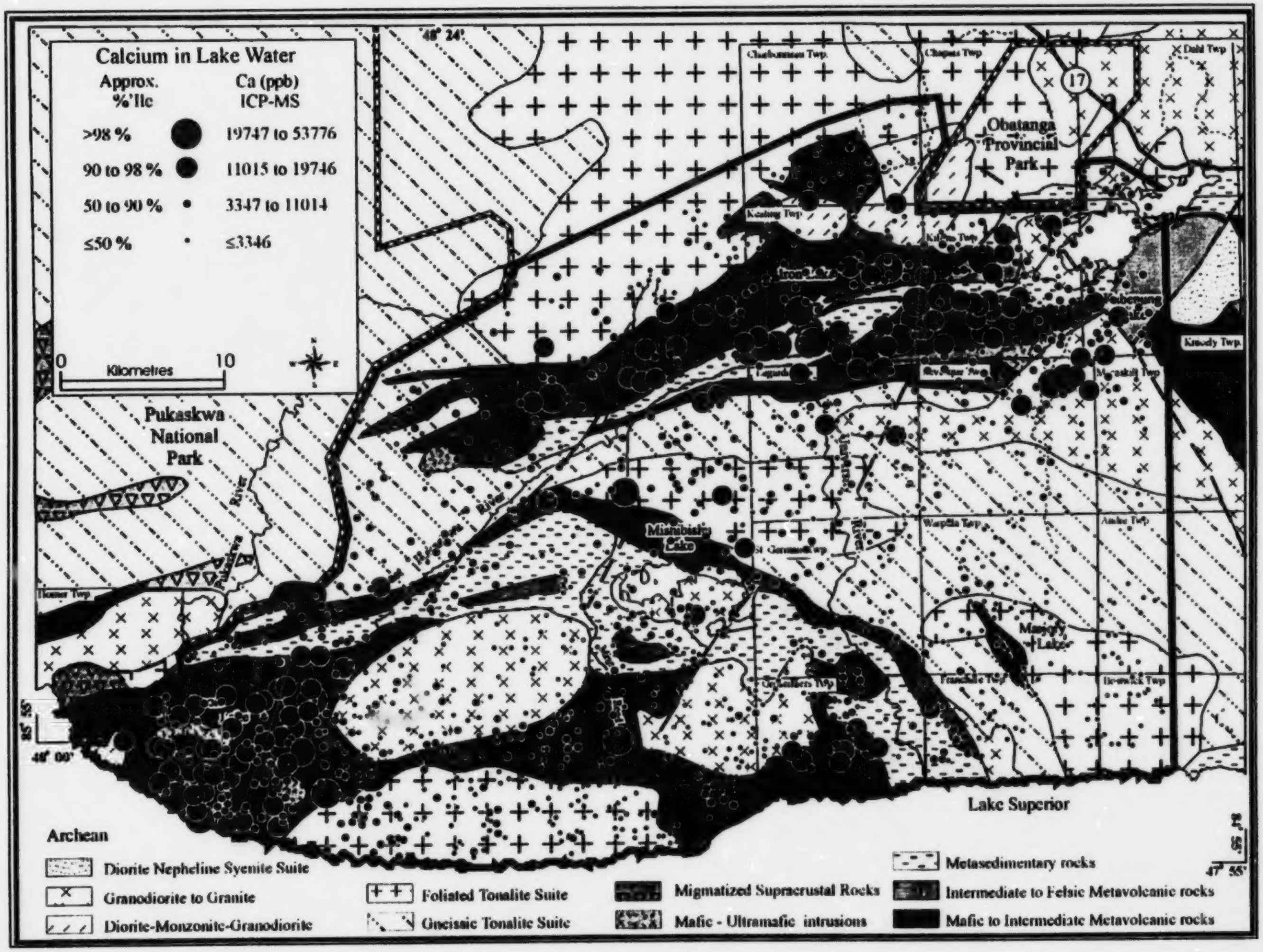
Wolfe, W.J. 1976. Regional geochemical reconnaissance of archean metavolcanic-metasedimentary belts in the Pukaskwa region. Ontario Division of Mines, GR158, 54p.

Appendix A: **Proportional dot maps of pH, conductivity, lake depth, Ca and Mg in lake waters.**

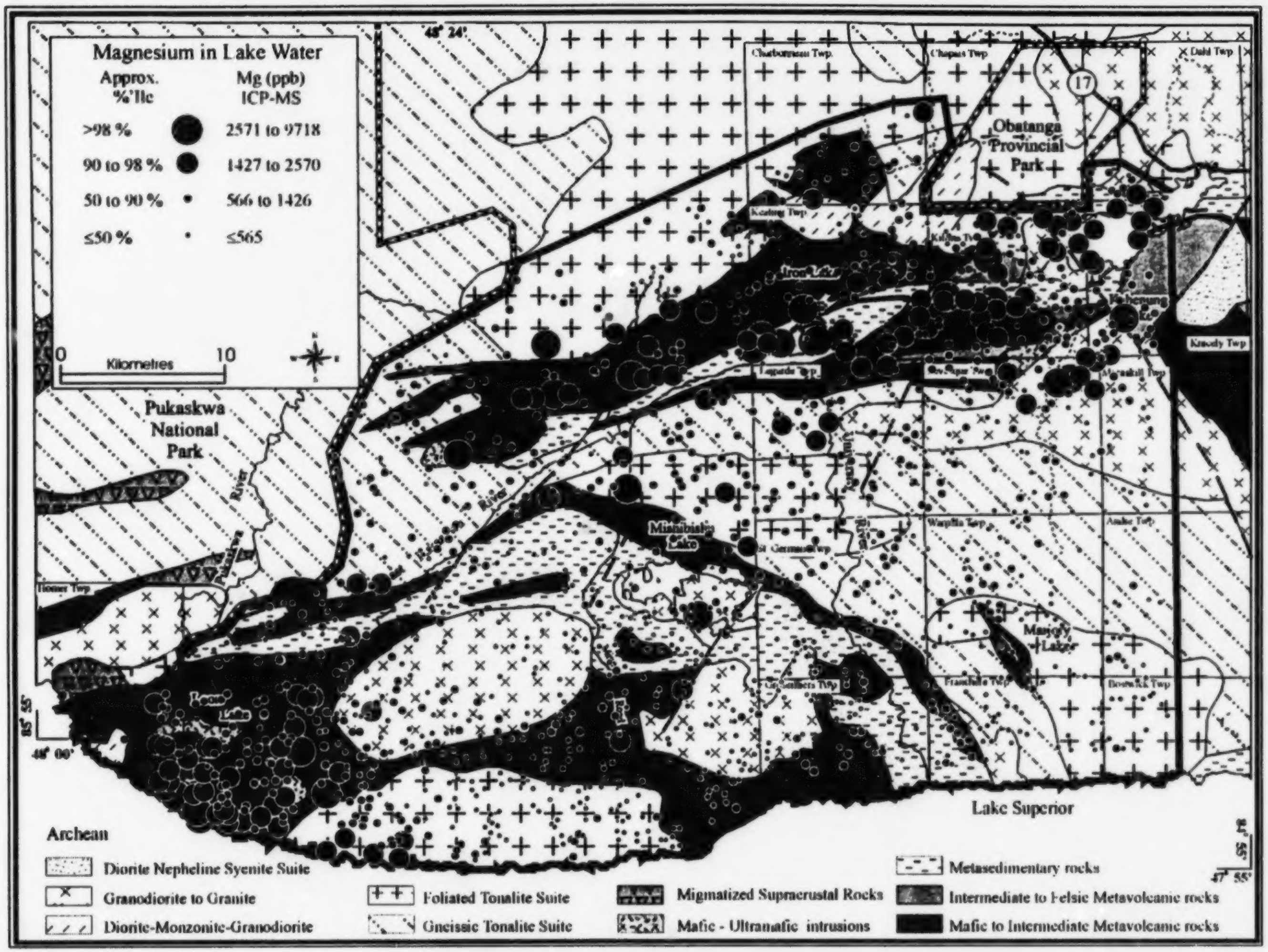

Mishibishu Lake Study Area
pH of Lake Water
5.00 to 3.87
5.50 to 5.00
6.00 to 5.50
7.00 to 6.00
9.00 to 9.92
8.50 to 9.00
8.00 to 8.50
7.00 to 8.00
0
10
Kilometres
48° 24'
Charbonneau Twp
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Iron Lake
Kabenung Lake
Kinady Twp
Pukaskwa National Park
River
Mishibishu Lake
St Germain Twp
Loon Lake
85° 55'
48° 00'
Lake Superior
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks


Conductivity in Lake Water
Approx. %'ile
Conductivity (µs/cm)
> 98 %
76.5 to 827.0
95 to 98 %
61.4 to 76.5
90 to 95 %
47.9 to 61.4
75 to 90 %
32.0 to 47.9
50 to 90 %
20.6 to 32.0
≤ 50%
0.0 to 20.6
0
10
Kilometres
48° 24'
Chapais Twp
Obatanga Provincial Park
17
Keating Twp
Iron Lake
Kabenung Lake
Knowly Twp
Marshall Twp
Pukaskwa National Park
Pukaskwa River
Homer Twp
Michipicoten River
Mishibishu Lake
Gamma Twp
Wawa Twp
Ambo Twp
Mageary Lake
Lake Superior
48° 00'
85° 55'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

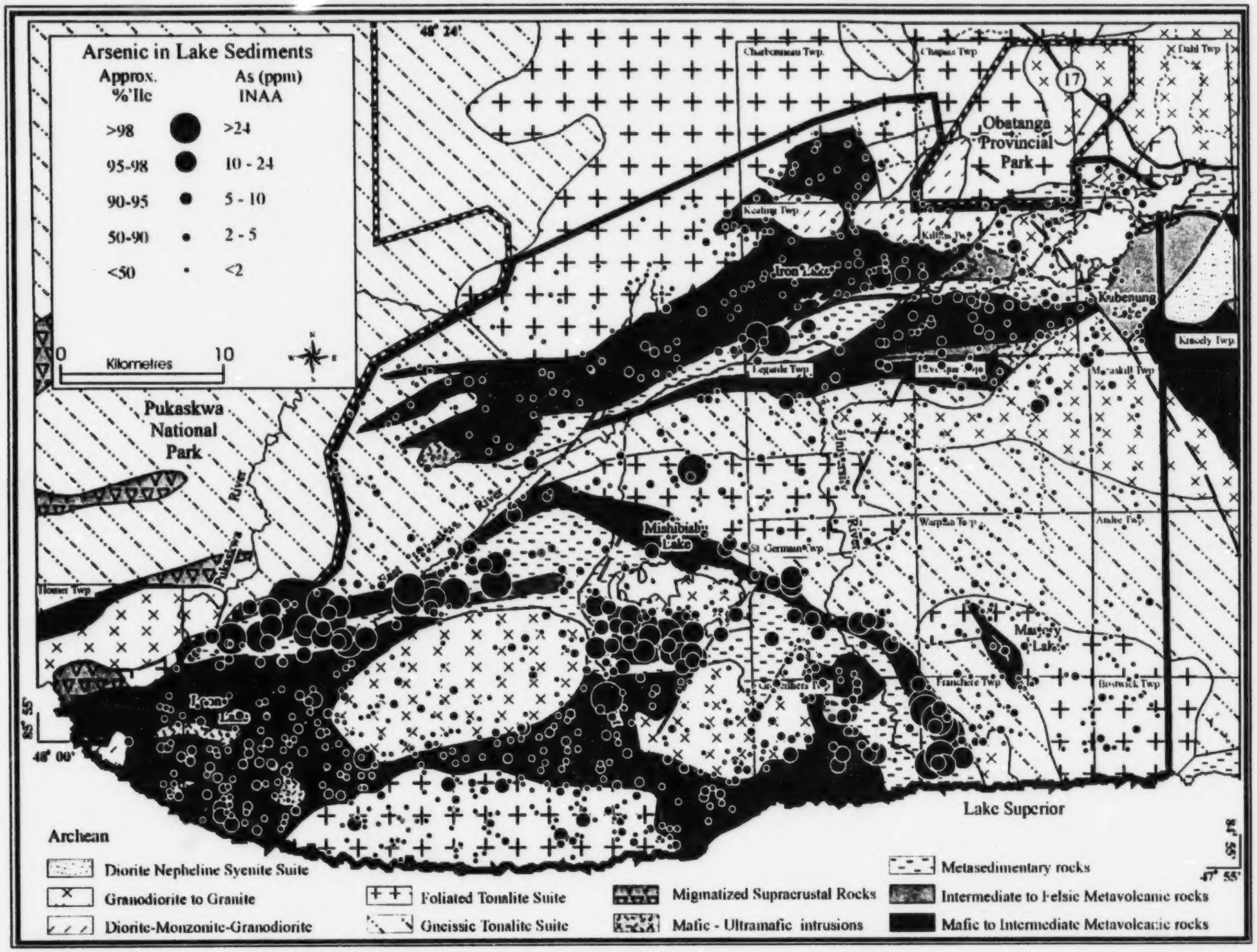

Lake Depth
Approx. %'ile
Depth (m)
>98 %
18 to 30
95 to 98 %
12 to 18
90 to 95 %
8 to 12
75 to 90 %
4 to 8
50 to 75 %
2 to 4
≤50
≤2
0
10
Kilometres
48° 24'
Chabourneau Twp
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Keating Twp
Kabila Twp
Iron Lake
Obenung
Kinsely Twp
Laparde Twp
Magratkill Twp
Pukaskwa National Park
River
Mishibishu Lake
St Germain Twp
Warpula Twp
Ambe Twp
Homer Twp
Pukaskwa
River
Maquay Lake
Francis Twp
Bostwick Twp
85° 55'
48° 00'
Lake Superior
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

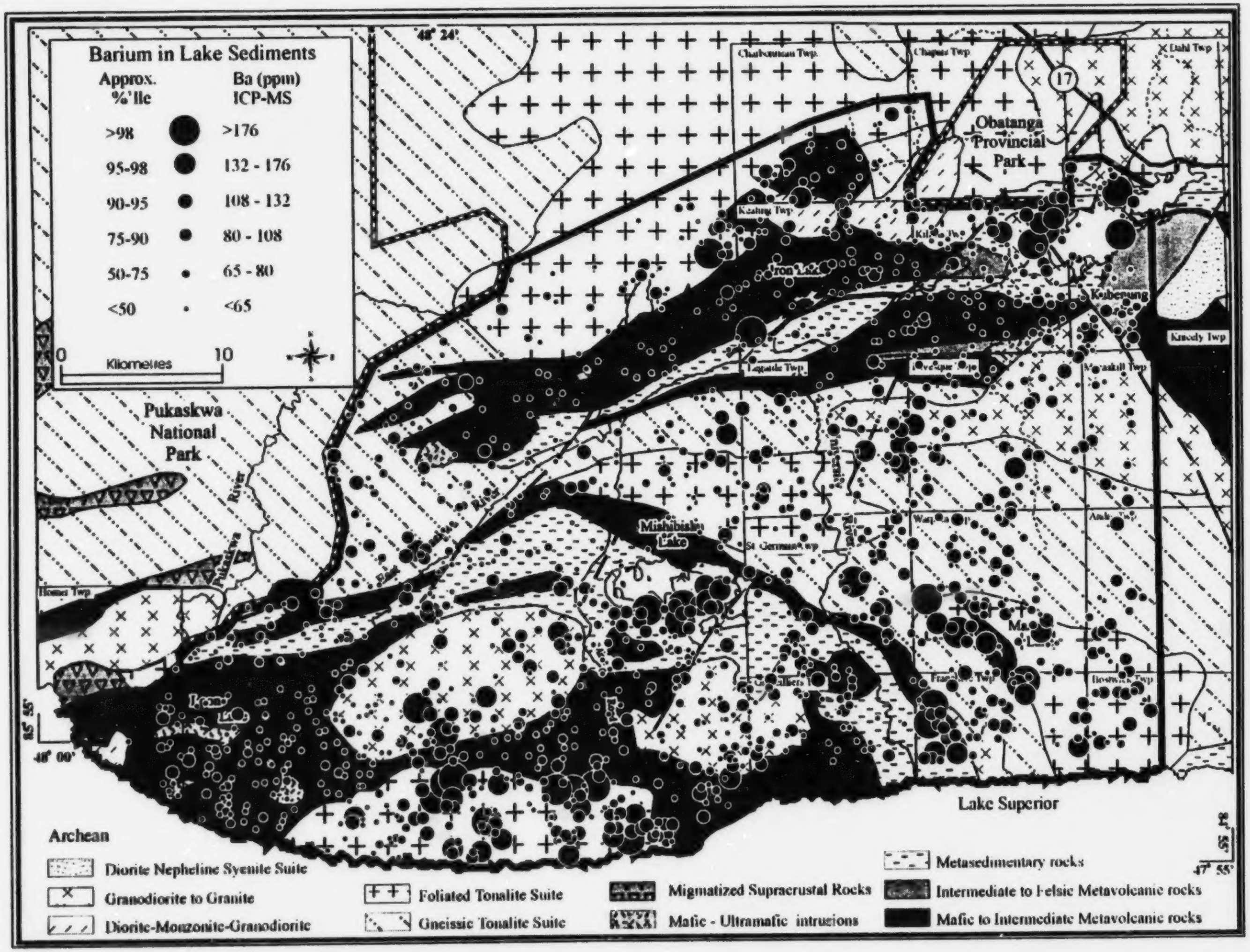


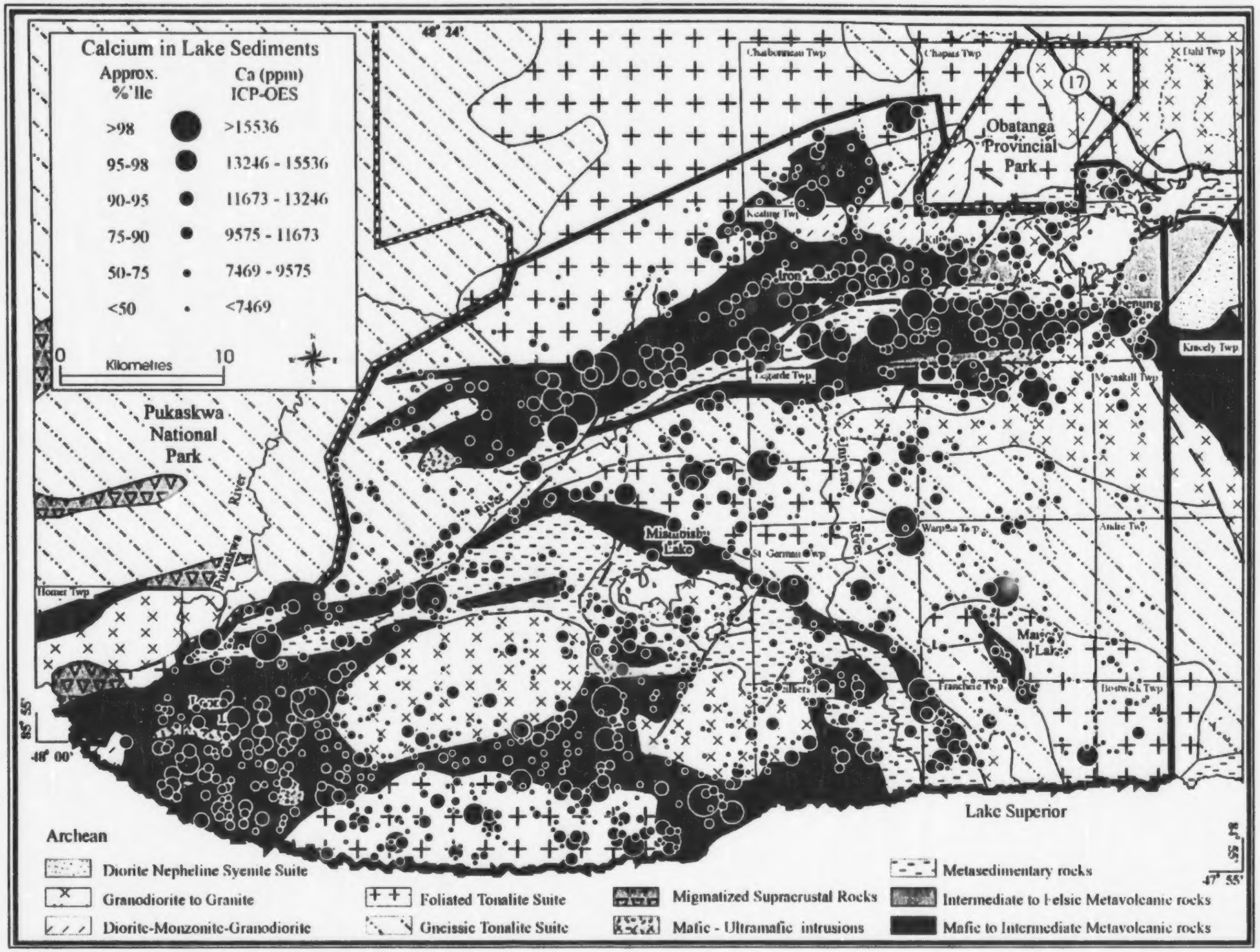
Calcium in Lake Water
Approx. %'ile
Ca (ppb) ICP-MS
>98 % 19747 to 53776
90 to 98 % 11015 to 19746
50 to 90 % 3347 to 11014
≤50 % ≤3346
0 Kilometres 10
Pukaskwa National Park
Obatanga Provincial Park
17
Iron Lake
Mishibishu Lake
Lake Superior
University River
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

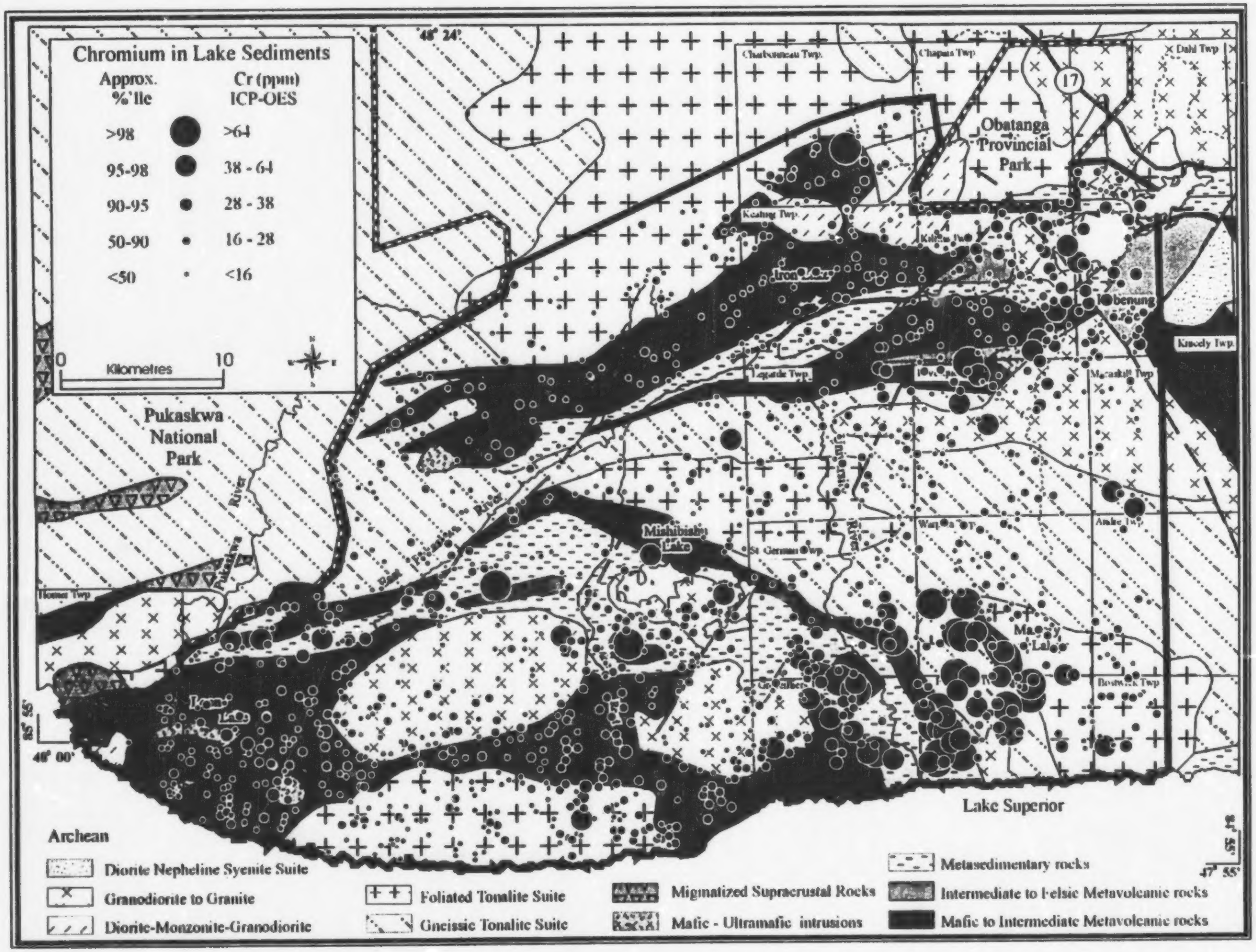

Magnesium in Lake Water
Approx. %'ile
Mg (ppb) ICP-MS
>98 %
2571 to 9718
90 to 98 %
1427 to 2570
50 to 90 %
566 to 1426
≤50 %
≤565
0
Kilometres
10
Pukaskwa National Park
Obatanga Provincial Park
17
Iron Lake
Minnibisia Lake
Lake Superior
River
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

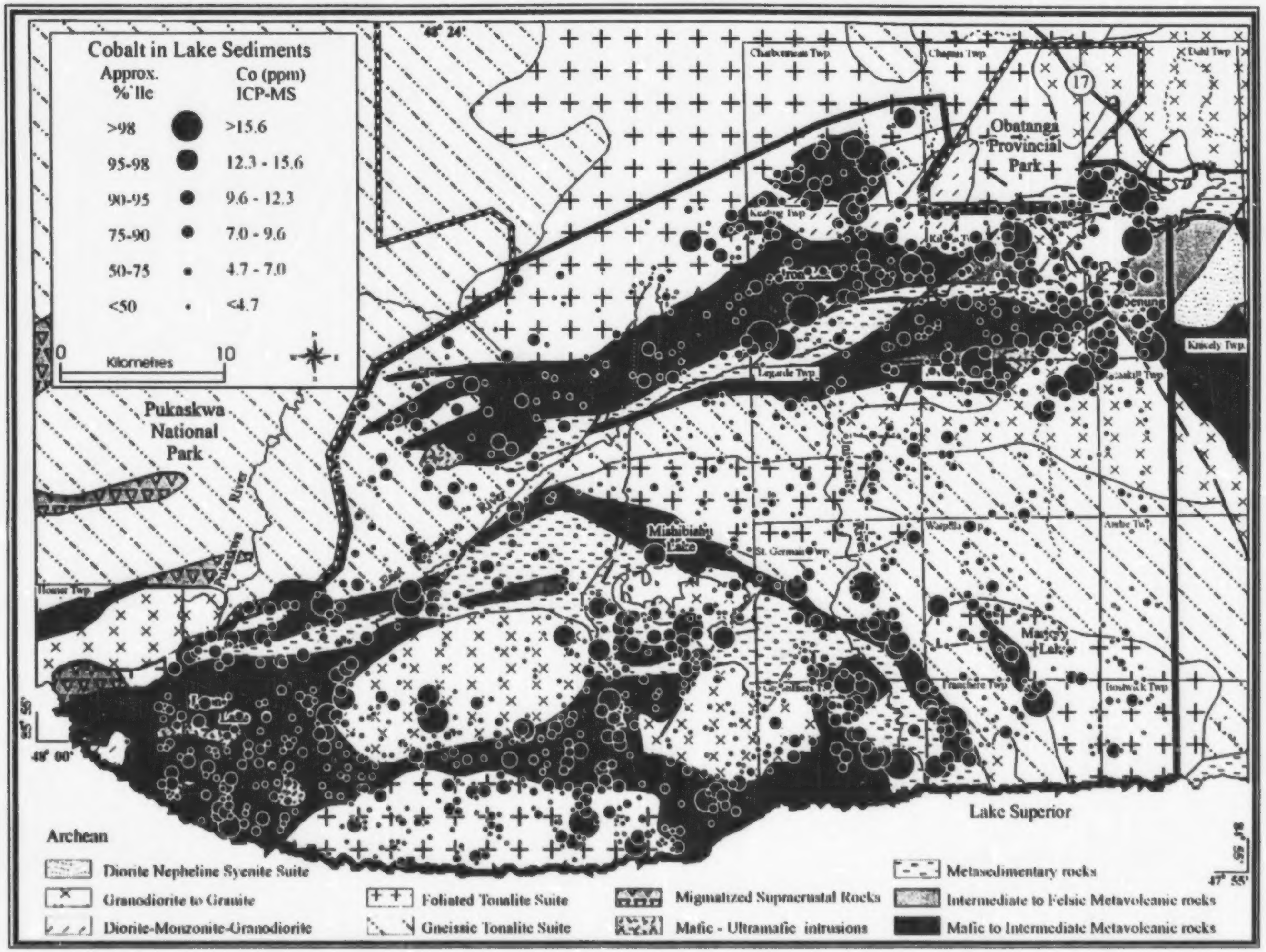
Appendix B: Lake sediment proportional dot maps for As, Ba, Ca, Cr, Co, Cu, Au (INAA), Au (ICP/FA), Fe, Pb, LOI, Mg, Mn, Mo, Ni, Pd, Pt, total REEs, Ag, Ti, W, U, V and Zn.

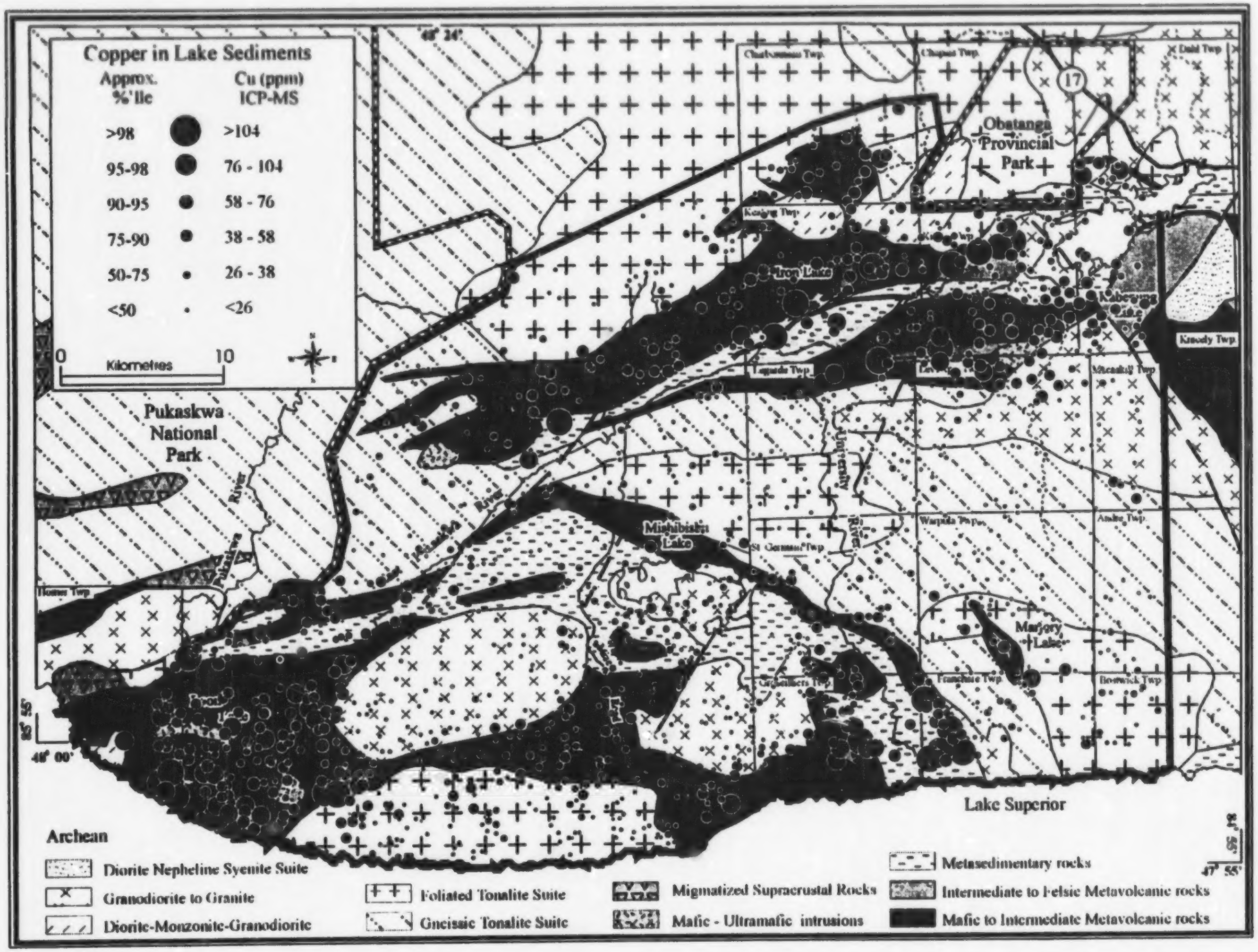

Arsenic in Lake Sediments
Approx. %'ile
As (ppm) INAA
>98 >24
95-98 10 - 24
90-95 5 - 10
50-90 2 - 5
<50 <2
0
Kilometres
10
48° 24'
Charbonneau Twp.
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Keating Twp
Killins Twp
Iron Lake
Kabenung Lake
Kinoely Twp.
Legarde Twp.
Mcraskill Twp
Pukaskwa National Park
River
University
River
Mishibishu Lake
St Germain Twp
Warpula Twp
Abbie Twp
Homer Twp
Iron Lake
Margery Lake
Franchere Twp
Bostwick Twp
Lake Superior
85° 55'
48° 00'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

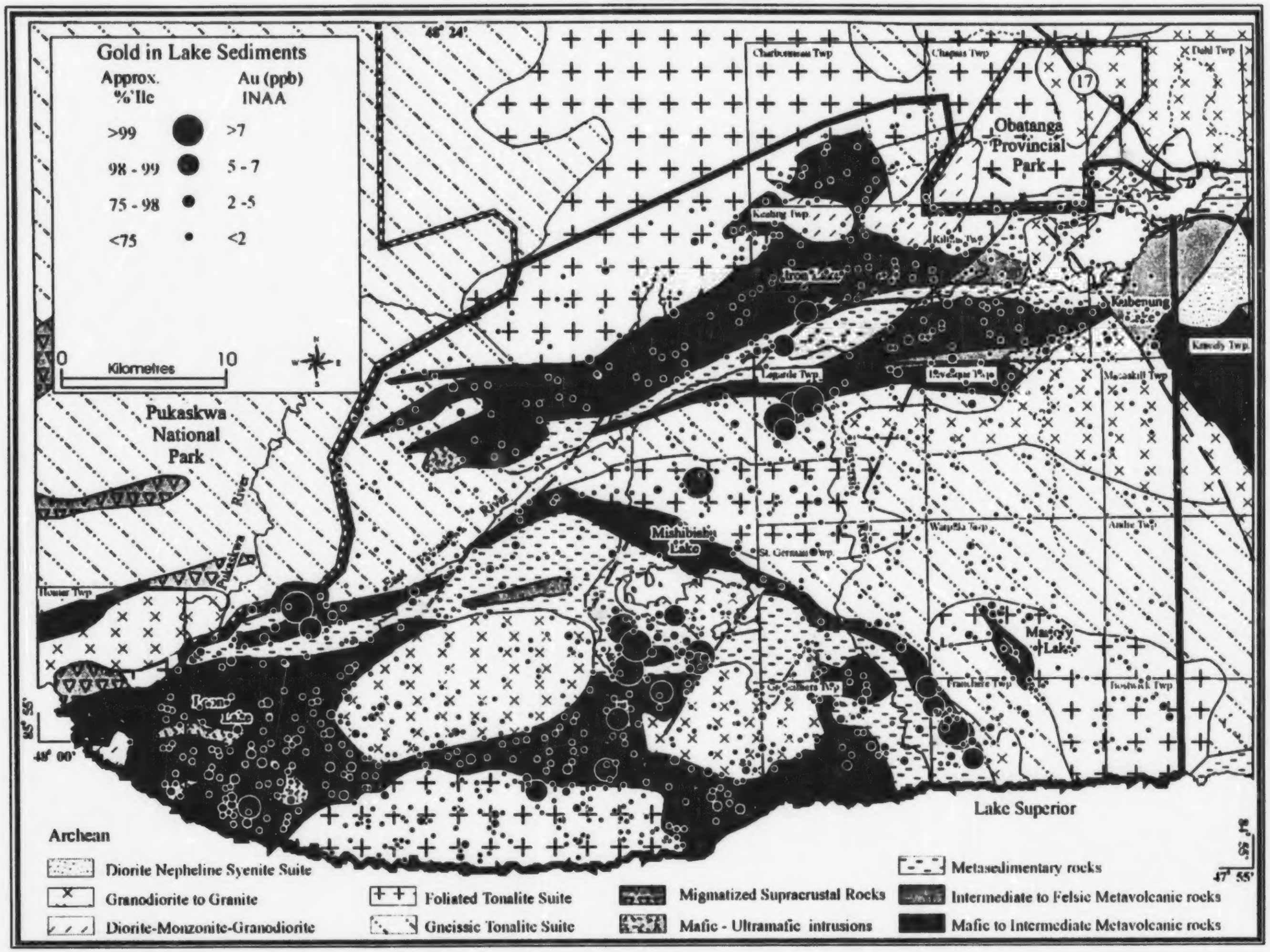

Barium in Lake Sediments
Approx. %'ile
Ba (ppm) ICP-MS
>98 >176
95-98 132 - 176
90-95 108 - 132
75-90 80 - 108
50-75 65 - 80
<50 <65
0 10
Kilometres
Pukaskwa National Park
Obatanga Provincial Park
17
Iron Lake
Mishibishu Lake
Lake Superior
River
Kabenung
Chabanel Twp
Chapais Twp
Dahl Twp
Keating Twp
Kincaid Twp
Legault Twp
Leveque Twp
Nagaskill Twp
Kenedy Twp
Wapiti Twp
St Germain Twp
Homer Twp
Ambrose Twp
Franchere Twp
Bostwick Twp
48° 24'
48° 09'
85° 55'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

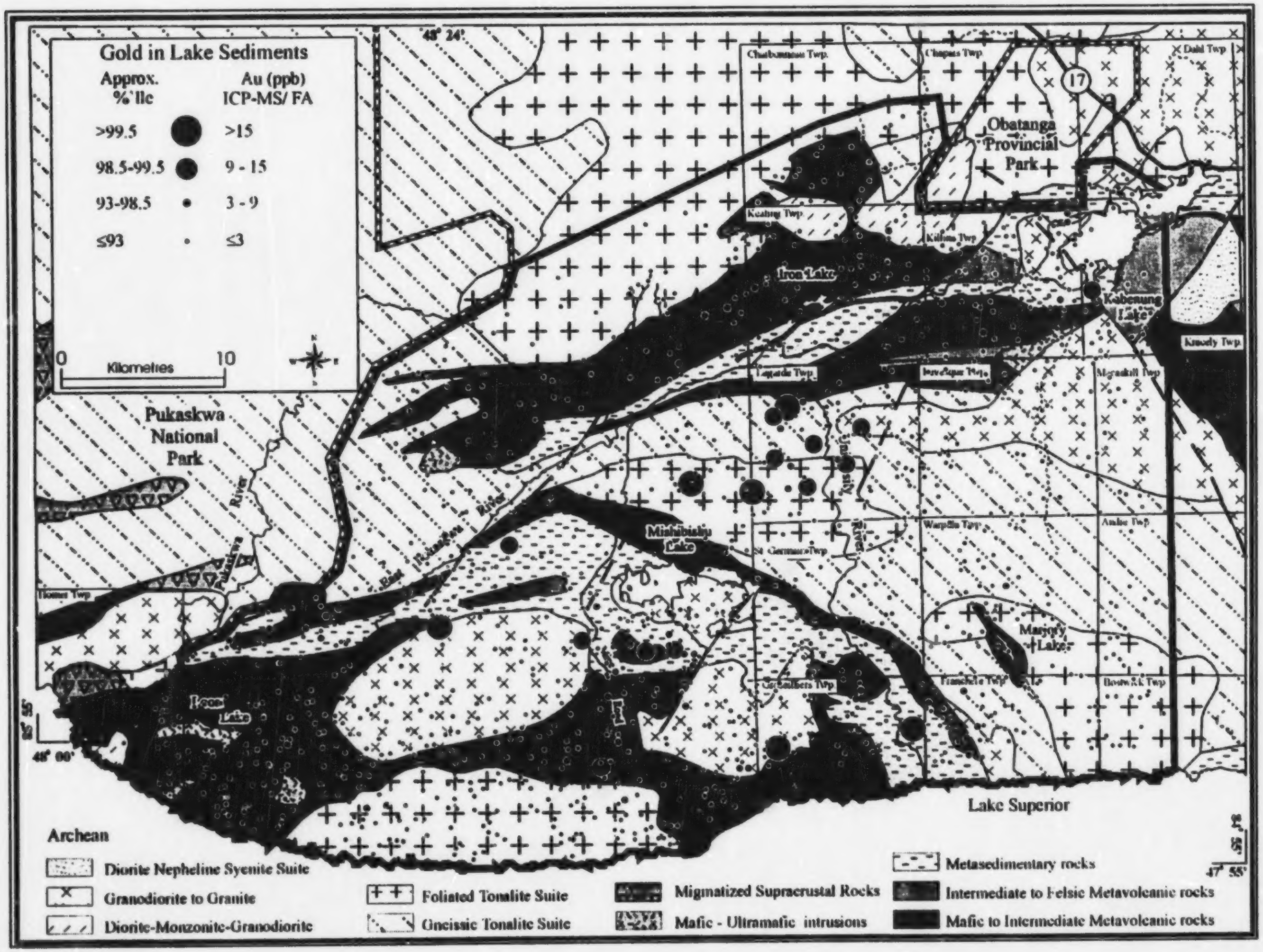

Calcium in Lake Sediments
Approx. %'ile
Ca (ppm) ICP-OES
>98 >15536
95-98 13246 - 15536
90-95 11673 - 13246
75-90 9575 - 11673
50-75 7469 - 9575
<50 <7469
0
10
Kilometres
48° 24'
Charbonneau Twp
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Keating Twp
Iron
Legarde Twp
Kabenung
Kinealy Twp
Moraskill Twp
Pukaskwa National Park
Pukaskwa
River
Homer Twp
Mishibishu Lake
St Germain Twp
University
River
Warpula Twp
Anahe Twp
Maggey Lake
Franchere Twp
Bostwick Twp
Lake Superior
85° 55'
48° 00'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

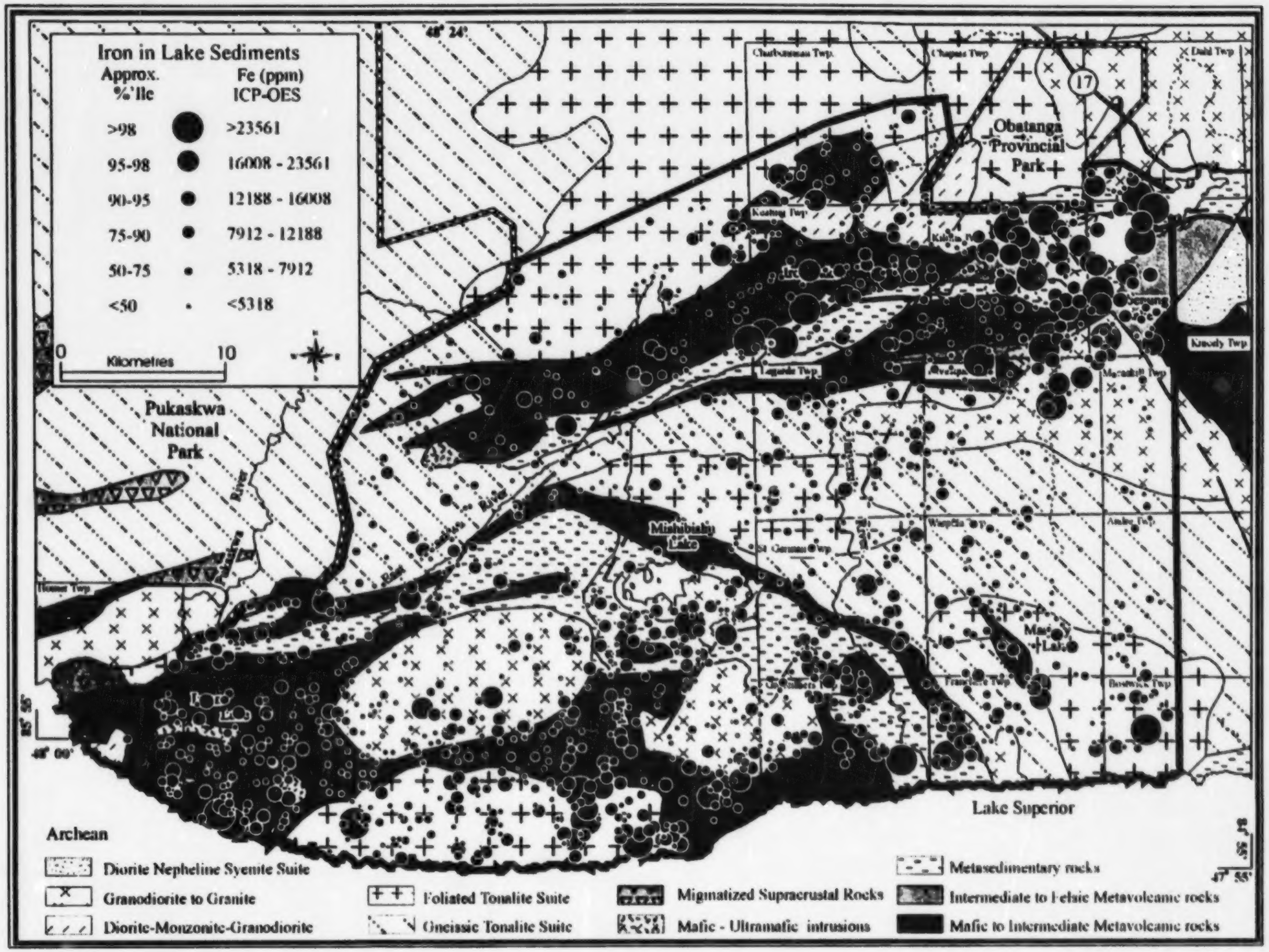

Chromium in Lake Sediments
Approx. %'ile
Cr (ppm) ICP-OES
>98
>64
95-98
38 - 64
90-95
28 - 38
50-90
16 - 28
<50
<16
0
Kilometres
10
48° 24'
Charbonneau Twp.
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Keating Twp.
Iron Lake
Legarde Twp.
Knowles Twp.
Macaskill Twp
Pukaskwa National Park
River
Mishibishu Lake
St Germain Twp
River
Wangoosh Twp
Abbe Twp
Magpie Lake
Bostwick Twp
Homer Twp
Pukaskwa River
85° 55'
48° 00'
Lake Superior
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

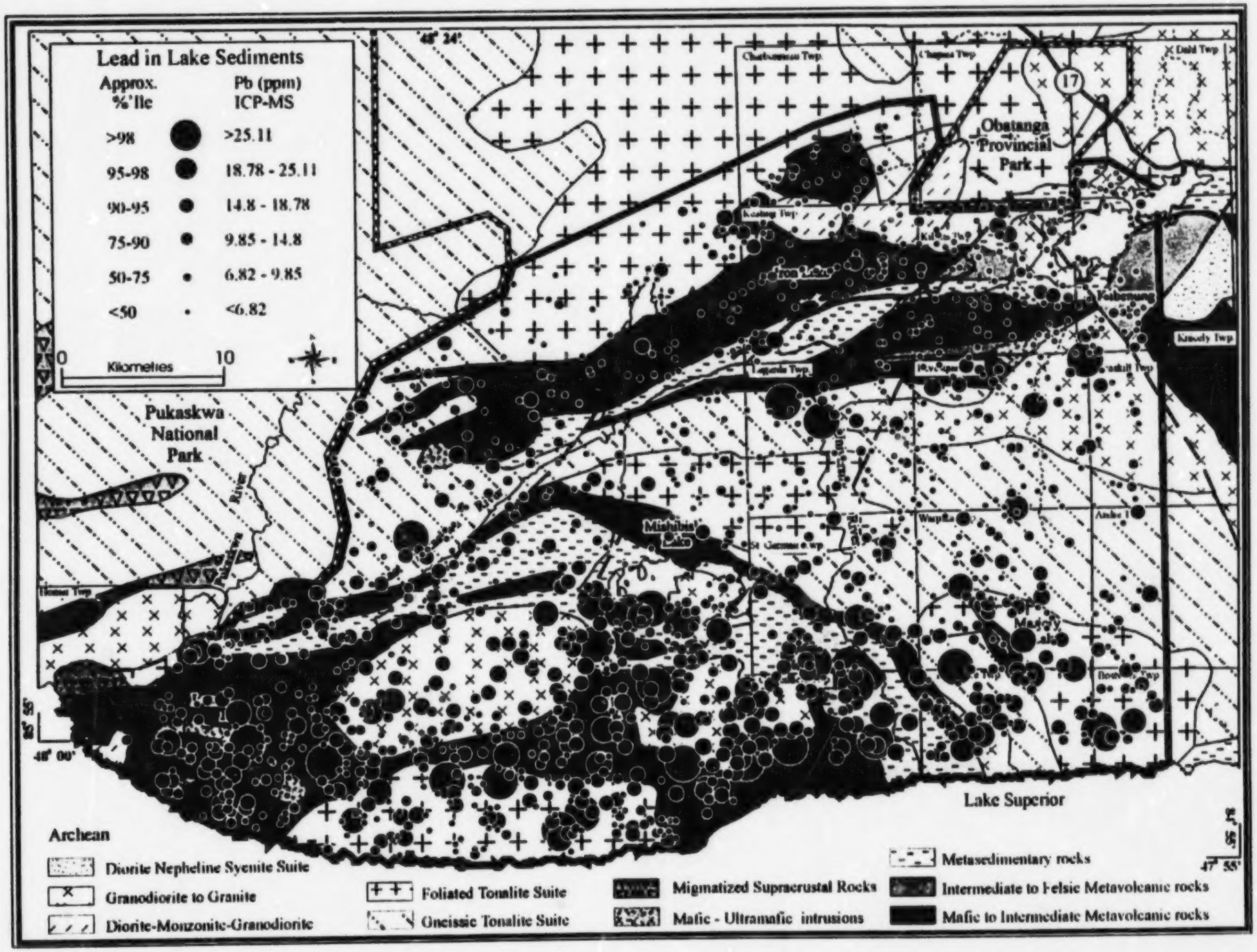

Cobalt in Lake Sediments
Approx. %'ile
Co (ppm) ICP-MS
>98 >15.6
95-98 12.3 - 15.6
90-95 9.6 - 12.3
75-90 7.0 - 9.6
50-75 4.7 - 7.0
<50 <4.7
0
10
Kilometres
48° 24'
Charbonneau Twp.
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Keating Twp
Iron Lake
Legarde Twp
Knicely Twp.
Pukaskwa National Park
River
River
Mishibishu Lake
St. Germain Twp
Wappela
Ambe Twp
Margery Lake
Franchere Twp
Bostwick Twp
Home Twp
48° 00'
85° 55'
84° 55'
47° 55'
Lake Superior
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

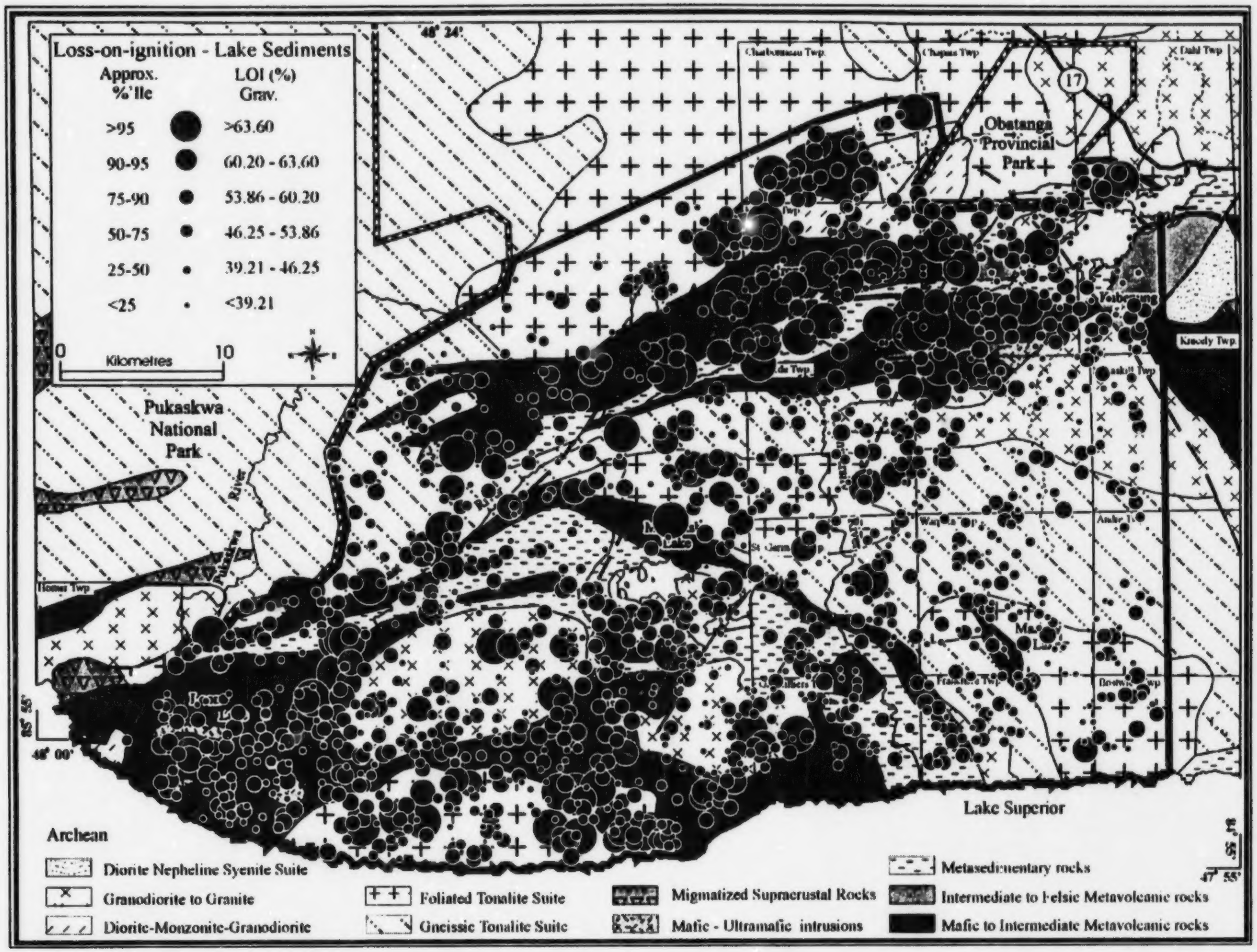

Copper in Lake Sediments
Approx. %'ile
Cu (ppm) ICP-MS
>98
>104
95-98
76 - 104
90-95
58 - 76
75-90
38 - 58
50-75
26 - 38
<50
<26
0
Kilometres
10
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Chabanneau Twp.
Chapais Twp.
Dahl Twp.
17
Obatanga Provincial Park
Iron Lake
Kabenung Lake
Kinody Twp.
Lagarde Twp.
Mincaskill Twp.
University River
Pukaskwa National Park
Pukaskwa River
River
Homer Twp.
Mishibishu Lake
St. Germain Twp.
Warpula Twp.
Anahe Twp.
Marjory Lake
Franchère Twp.
Bostwick Twp.
Grosseilliers Twp.
Lake Superior
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

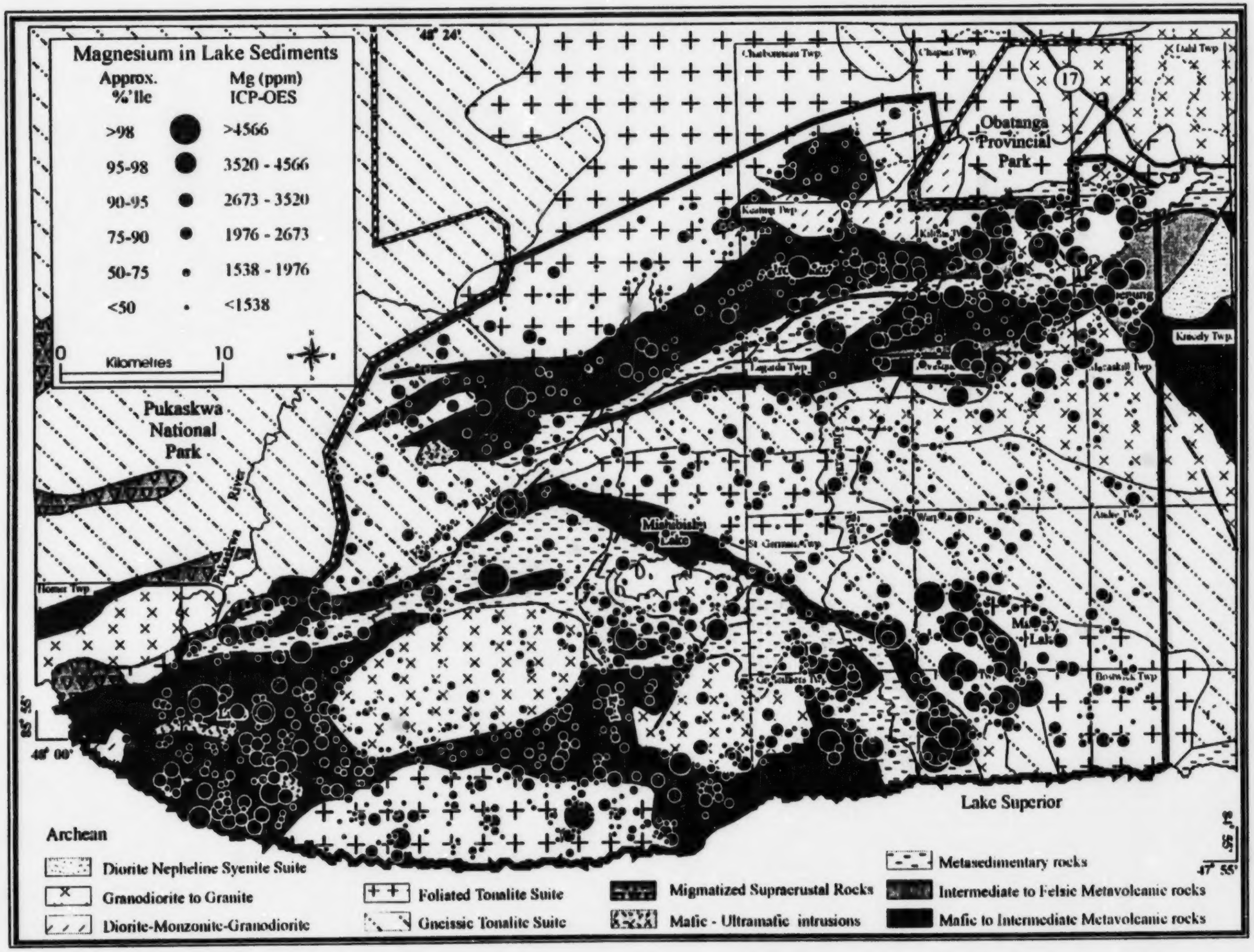

Gold in Lake Sediments
Approx. %'ile
Au (ppb) INAA
>99
>7
98 - 99
5 - 7
75 - 98
2 -5
<75
<2
0
10
Kilometres
N
S
E
W
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Charbonneau Twp
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Keating Twp
Iron Lake
Kabenung Lake
Kenedy Twp.
Lagarde Twp.
Mocaskill Twp
Pukaskwa National Park
Pukaskwa River
River
University River
Mishibishu Lake
St. Germain Twp.
Wampila Twp
Ambe Twp
Marjory Lake
Franchere Twp
Bostwick Twp
Lake Superior
Hoiser Twp
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

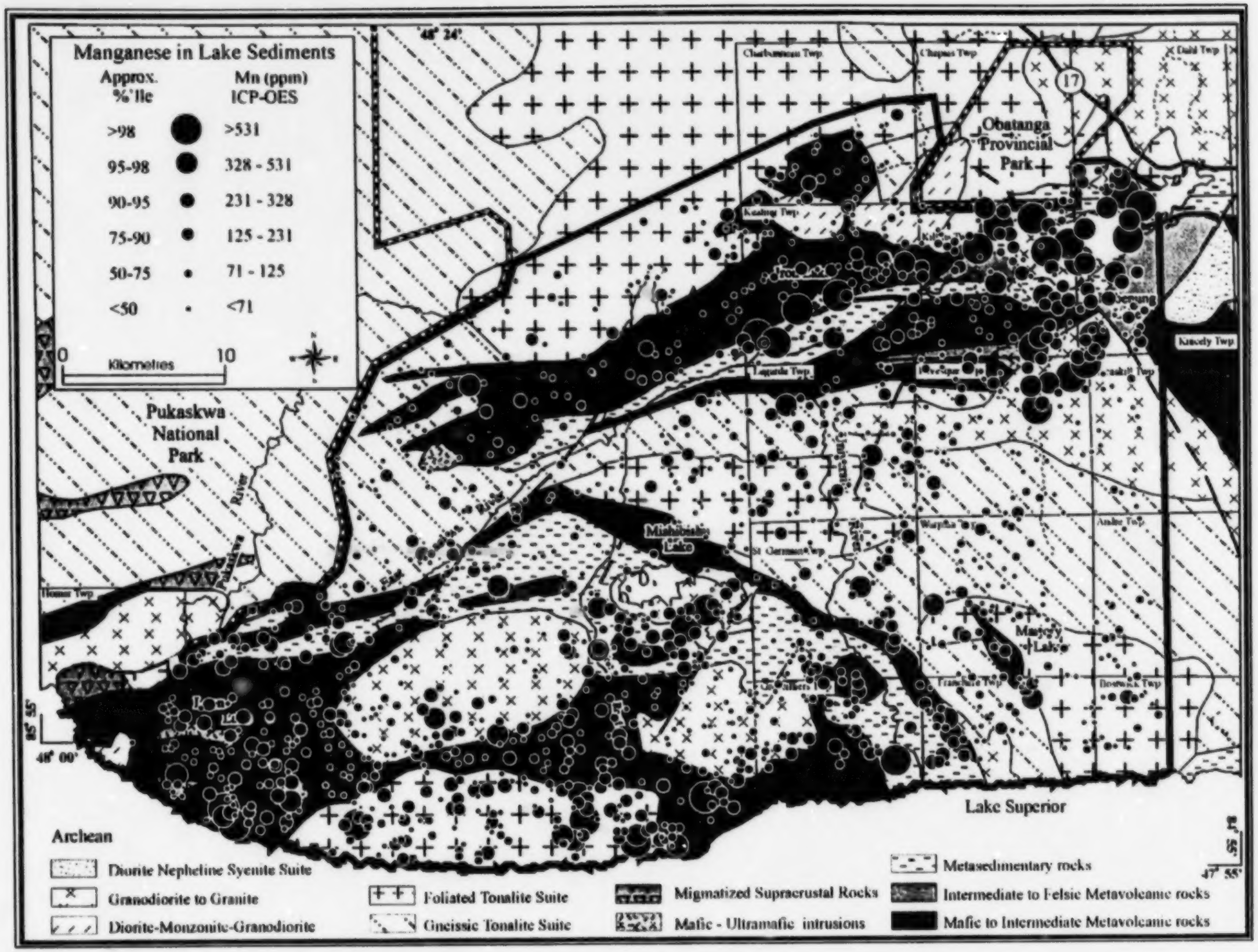

Gold in Lake Sediments
Approx. %'ile
Au (ppb) ICP-MS/ FA
>99.5
>15
98.5-99.5
9 - 15
93-98.5
3 - 9
≤93
≤3
0
Kilometres
10
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Keating Twp
Killins Twp
Iron Lake
Kabenung Lake
Lagarde Twp
Megraskill Twp
Pukaskwa National Park
Pukaskwa River
East Pukaskwa River
University River
Mishibishu Lake
St Germain Twp
Warpula Twp
Homer Twp
Marjory Lake
Bostwick Twp
Lake Superior
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

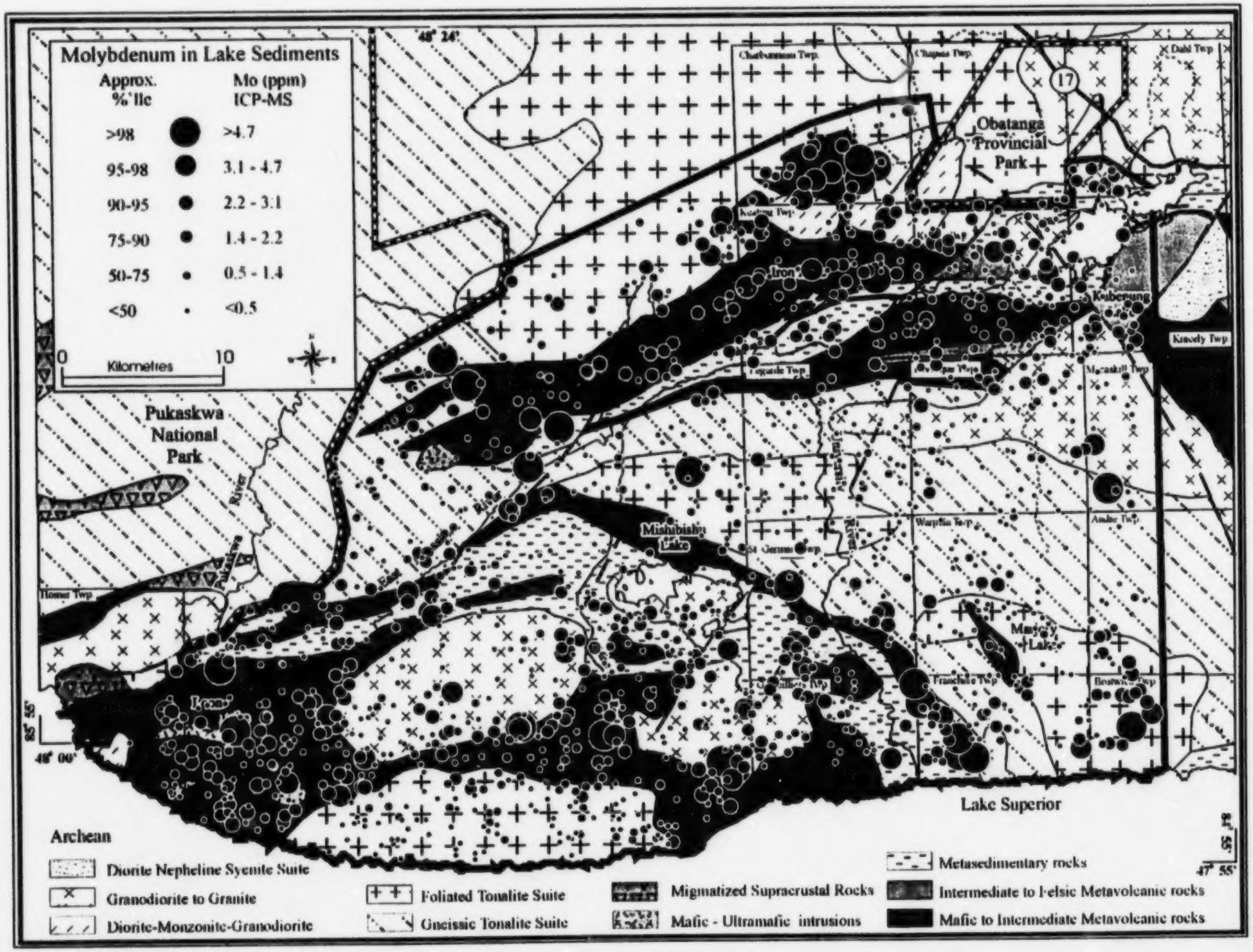

Iron in Lake Sediments
Approx. %'ile
Fe (ppm) ICP-OES
>98
>23561
95-98
16008 - 23561
90-95
12188 - 16008
75-90
7912 - 12188
50-75
5318 - 7912
<50
<5318
0
Kilometres
10
48° 24'
Charbonneau Twp.
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Kostung Twp
Knoedy Twp
Lagarde Twp
Pukaskwa National Park
River
River
Mishibishu Lake
Homer Twp
Lake Superior
85° 55'
48° 00'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

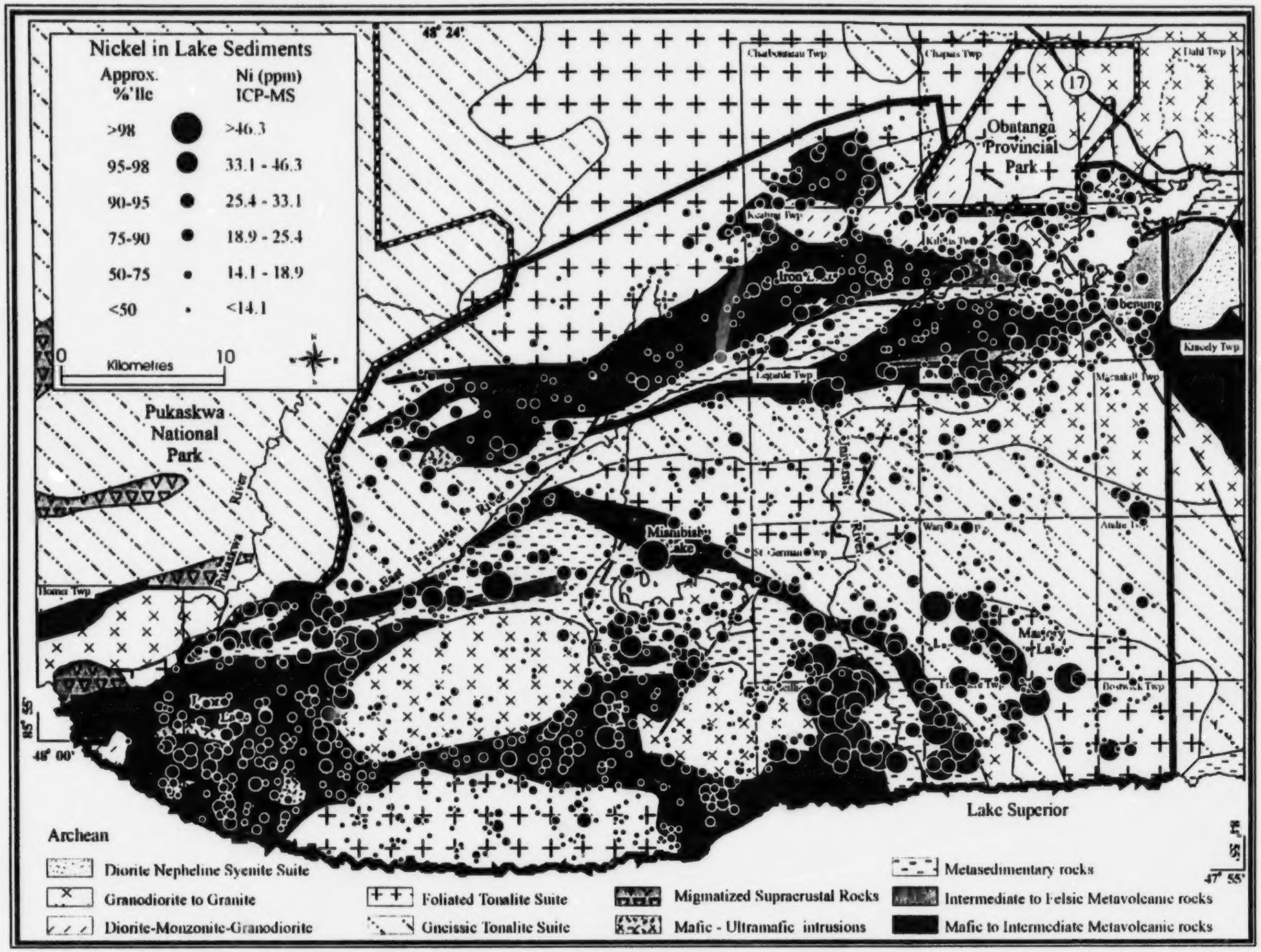
Lead in Lake Sediments
Approx. %'ile
Pb (ppm) ICP-MS
>98 >25.11
95-98 18.78 - 25.11
90-95 14.8 - 18.78
75-90 9.85 - 14.8
50-75 6.82 - 9.85
<50 <6.82
0 Kilometres 10
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Pukaskwa National Park
Obatanga Provincial Park
17
Dahl Twp
Iron Lake
Mishibishu Lake
River
Lake Superior
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

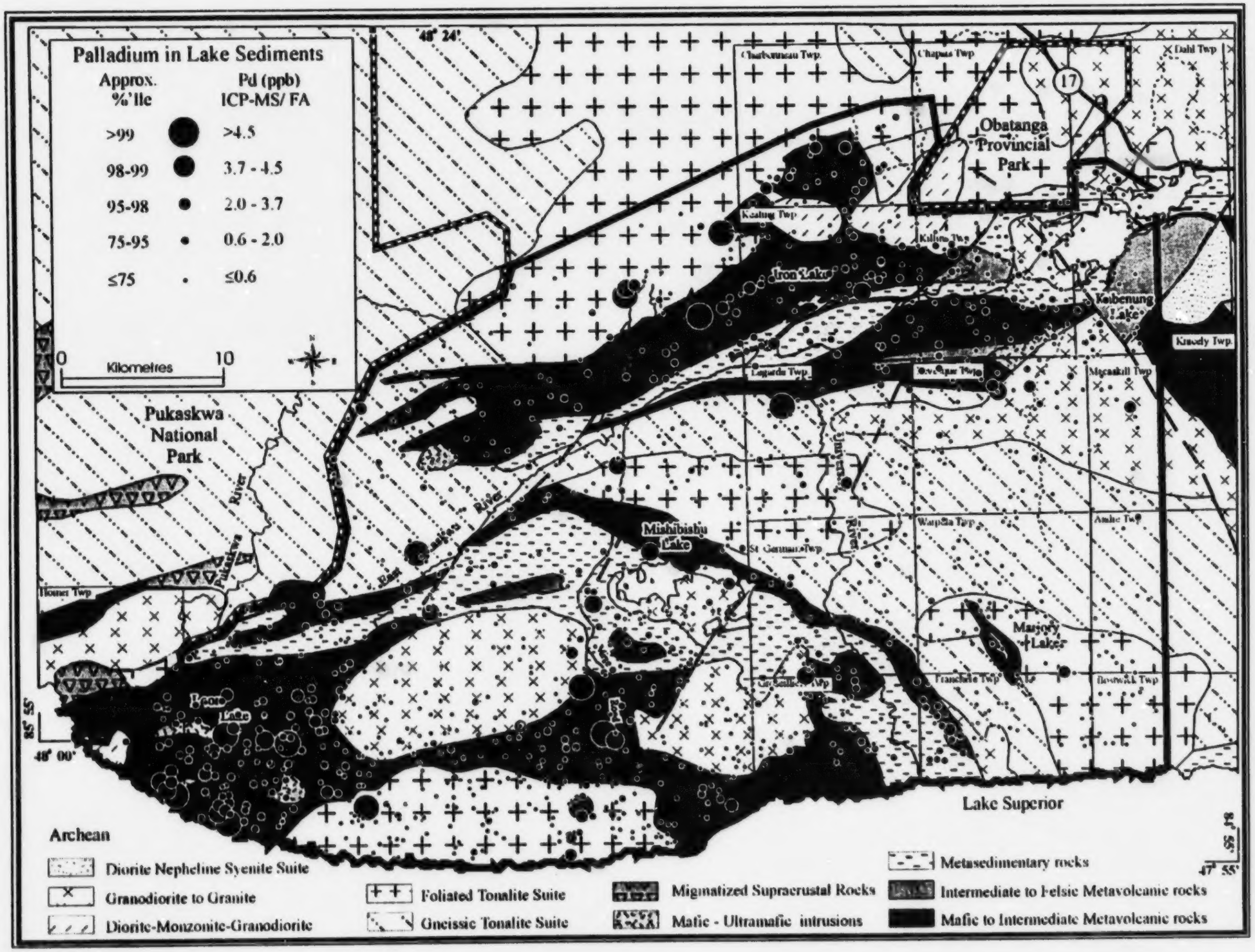

Loss-on-ignition - Lake Sediments
Approx. %'ile
LOI (%) Grav.
>95 >63.60
90-95 60.20 - 63.60
75-90 53.86 - 60.20
50-75 46.25 - 53.86
25-50 39.21 - 46.25
<25 <39.21
0 Kilometres 10
48° 24'
Chabonneau Twp.
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Kneedy Twp.
Pukaskwa National Park
River
Homer Twp
Lake
Lake Superior
48° 00'
85° 55'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

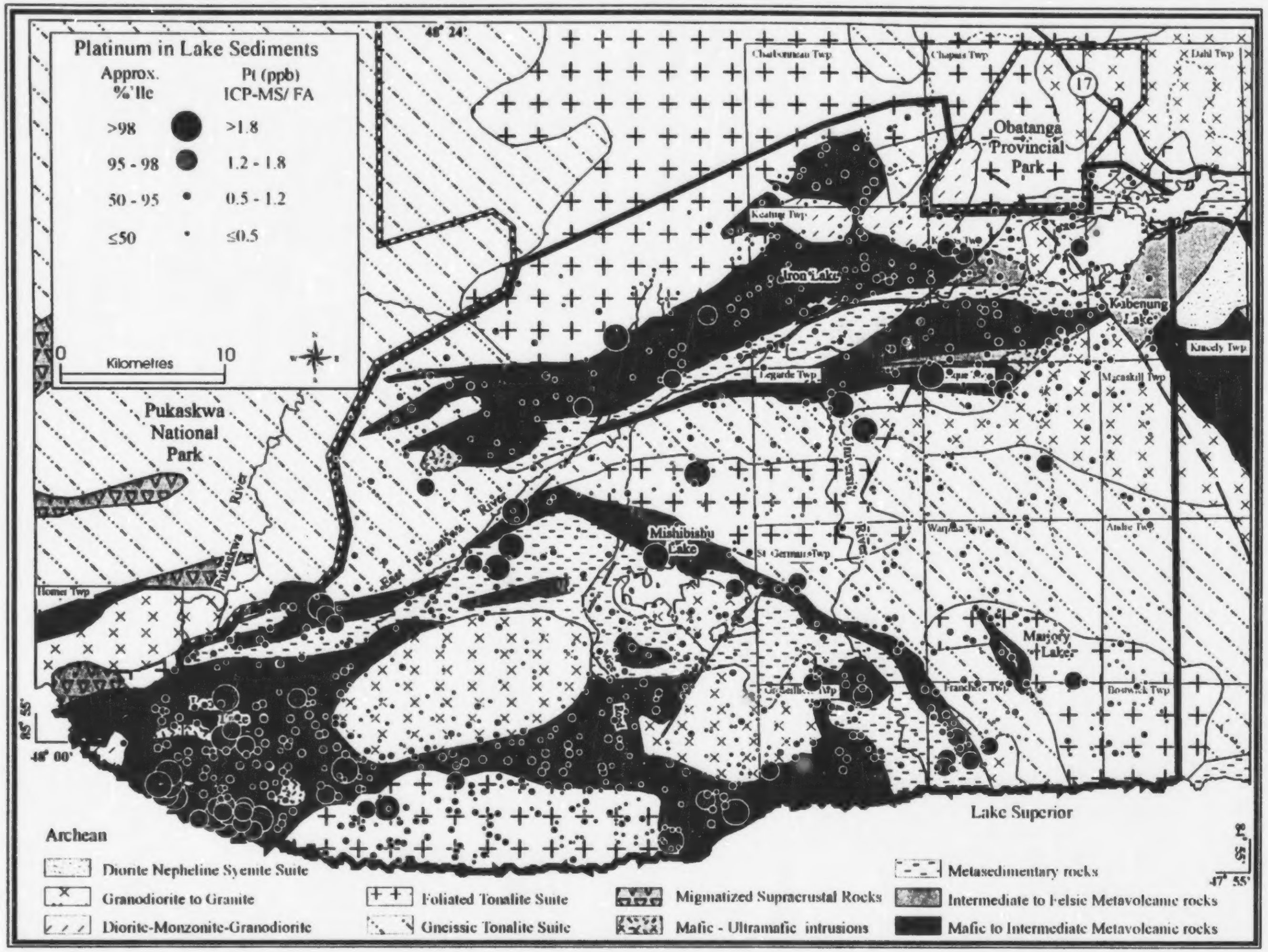

Magnesium in Lake Sediments
Approx. %'ile
Mg (ppm) ICP-OES
>98
>4566
95-98
3520 - 4566
90-95
2673 - 3520
75-90
1976 - 2673
50-75
1538 - 1976
<50
<1538
0
Kilometres
10
48° 24'
Chabanneau Twp.
Chapais Twp.
17
Obatanga Provincial Park
Keating Twp.
Lagarde Twp.
Kneedy Twp.
Pukaskwa National Park
River
Mishibishu Lake
St Germain Twp.
Andre Twp.
Bostwick Twp
Homer Twp
85° 55'
48° 00'
Lake Superior
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

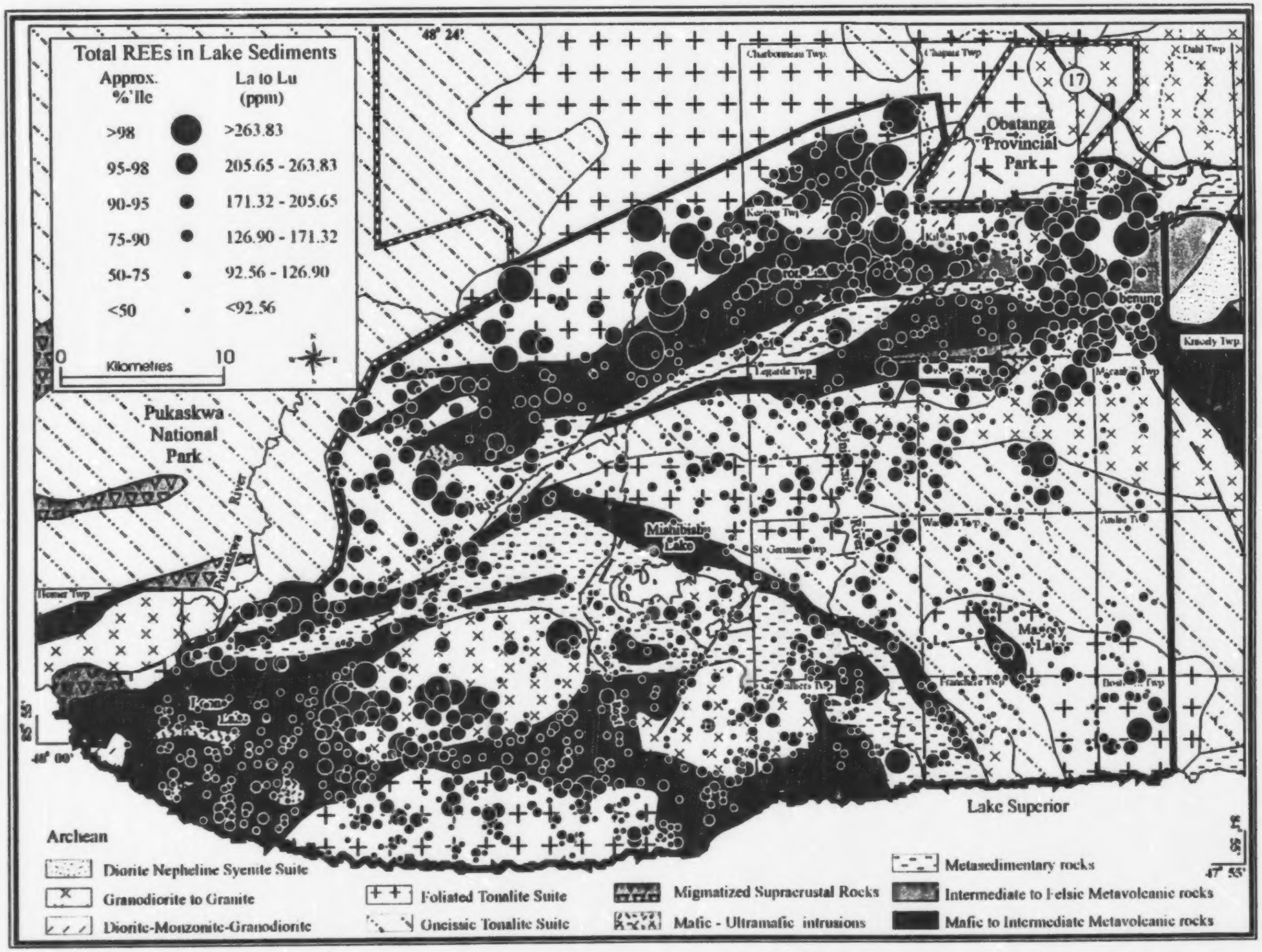

Manganese in Lake Sediments
Approx. %'ile
Mn (ppm) ICP-OES
>98
>531
95-98
328 - 531
90-95
231 - 328
75-90
125 - 231
50-75
71 - 125
<50
<71
0
10
Kilometres
48° 24'
Charbonneau Twp
Chapais Twp
Dald Twp
17
Obatanga Provincial Park
Kealing Twp
Laguerle Twp
Kinnelly Twp
Pukaskwa National Park
River
Mishibishu Lake
St Germain Twp
Warpula Twp
Abbie Twp
Mageey Lake
Franchere Twp
Bostwick Twp
Homer Twp
85° 55'
48° 00'
84° 55'
47° 55'
Lake Superior
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

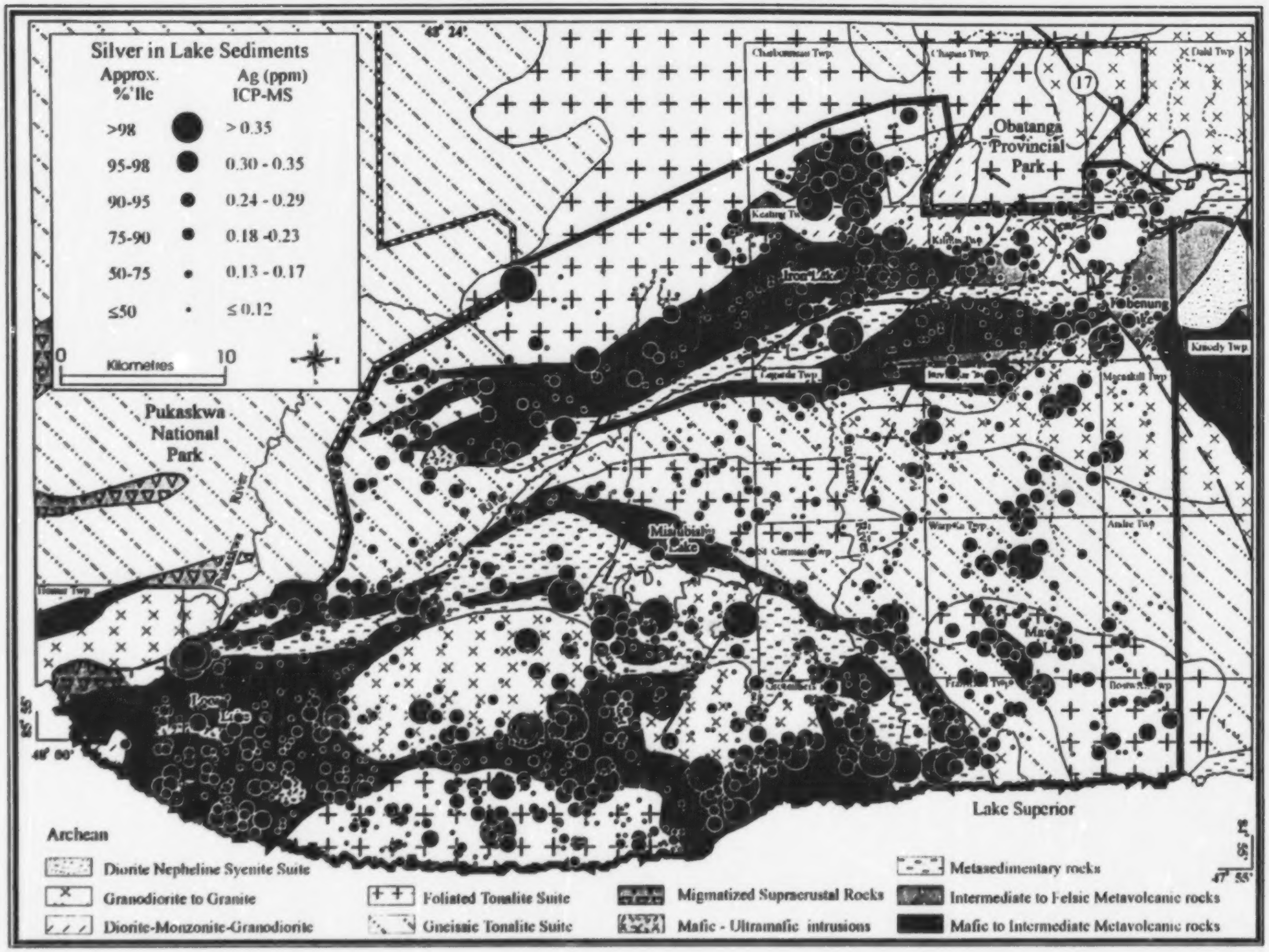

Molybdenum in Lake Sediments
Approx. %'ile
Mo (ppm) ICP-MS
>98 >4.7
95-98 3.1 - 4.7
90-95 2.2 - 3.1
75-90 1.4 - 2.2
50-75 0.5 - 1.4
<50 <0.5
0
Kilometres
10
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Pukaskwa National Park
Obatanga Provincial Park
17
Dahl Twp
Chapais Twp
Charbonneau Twp.
Kabenung
Kinnerly Twp
Iron
Tupanu Twp
Mishibishu Lake
Warpfin Twp
Andre Twp
Macaskill Twp
Mariey Lake
Bostwick Twp
Homer Twp
River
Lake Superior
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

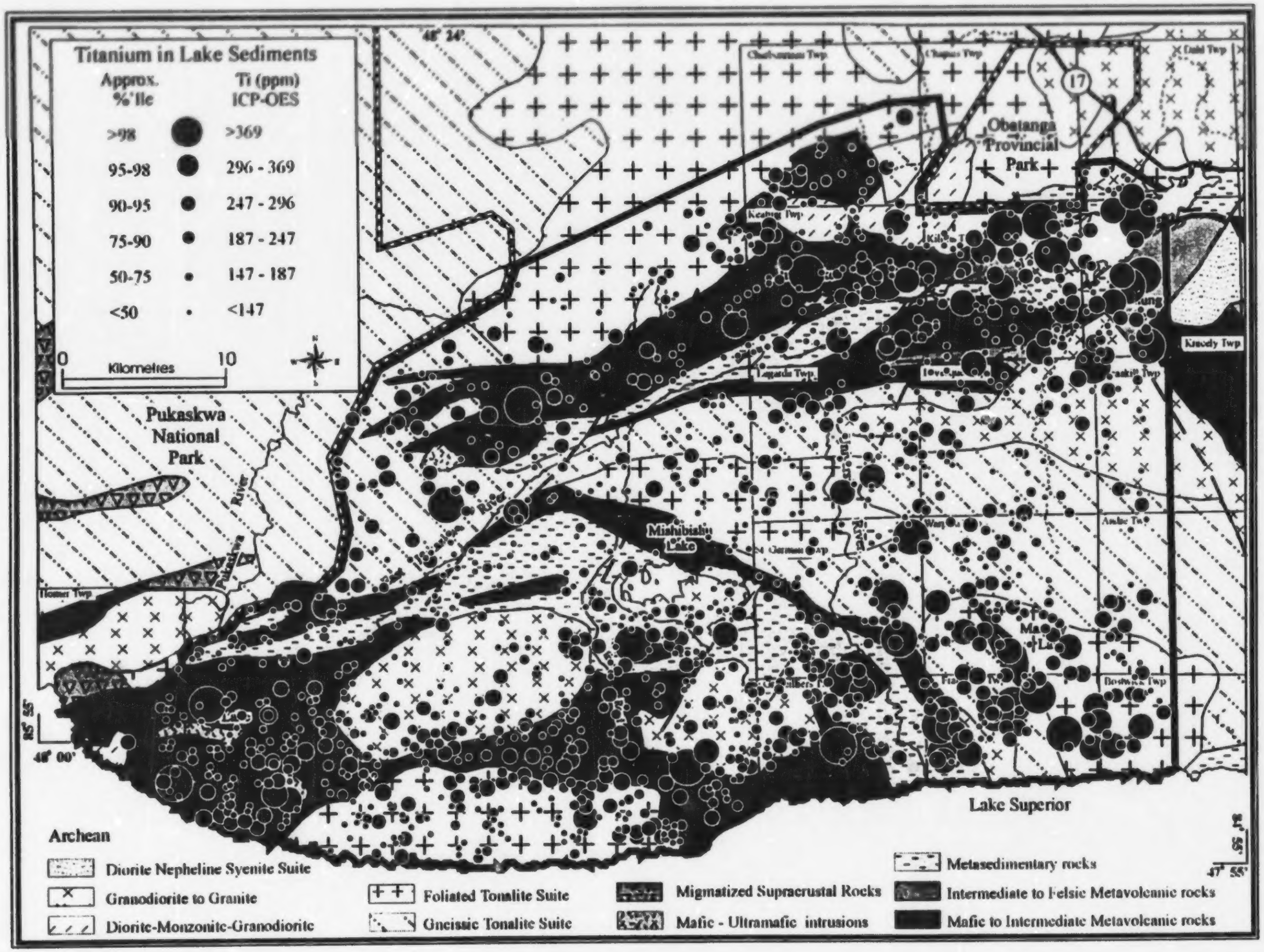

Nickel in Lake Sediments
Approx. %'ile
Ni (ppm) ICP-MS
>98 >46.3
95-98 33.1 - 46.3
90-95 25.4 - 33.1
75-90 18.9 - 25.4
50-75 14.1 - 18.9
<50 <14.1
0 10
Kilometres
48° 24'
Chabonneau Twp
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Keating Twp
Iron Lake
Lepardc Twp
Kineely Twp
Macaskill Twp
Pukaskwa National Park
Pukaskwa River
East Pukaskwa River
Homes Twp
University River
Mishibishu Lake
St Germain Twp
Atalie Twp
Margery Lake
Bostwick Twp
Lake Superior
85° 55'
48° 00'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

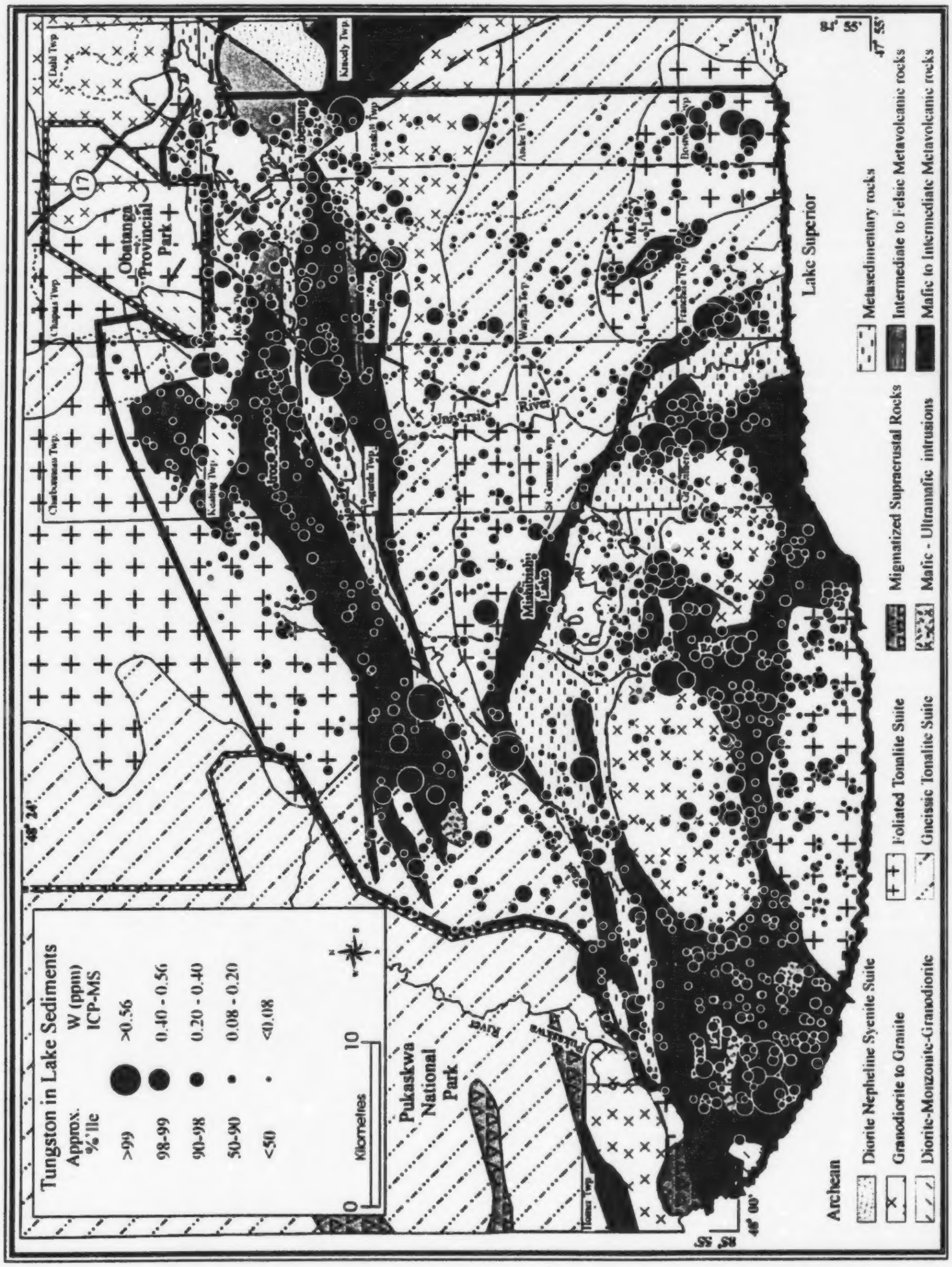

Palladium in Lake Sediments
Approx. %'ile
Pd (ppb) ICP-MS/ FA
>99 >4.5
98-99 3.7 - 4.5
95-98 2.0 - 3.7
75-95 0.6 - 2.0
≤75 ≤0.6
0 Kilometres 10
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Pukaskwa National Park
Obatanga Provincial Park
17
Iron Lake
Mishibishu Lake
Kabenung Lake
Marjory Lake
Lake Superior
River
Charlesmeau Twp
Chapais Twp
Dahl Twp
Kealing Twp
Kilkus Twp
Lagarde Twp
Kinody Twp
Mccaskill Twp
St. Germain Twp
Wappula Twp
Amdie Twp
Franchère Twp
Bostwick Twp
Homer Twp
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

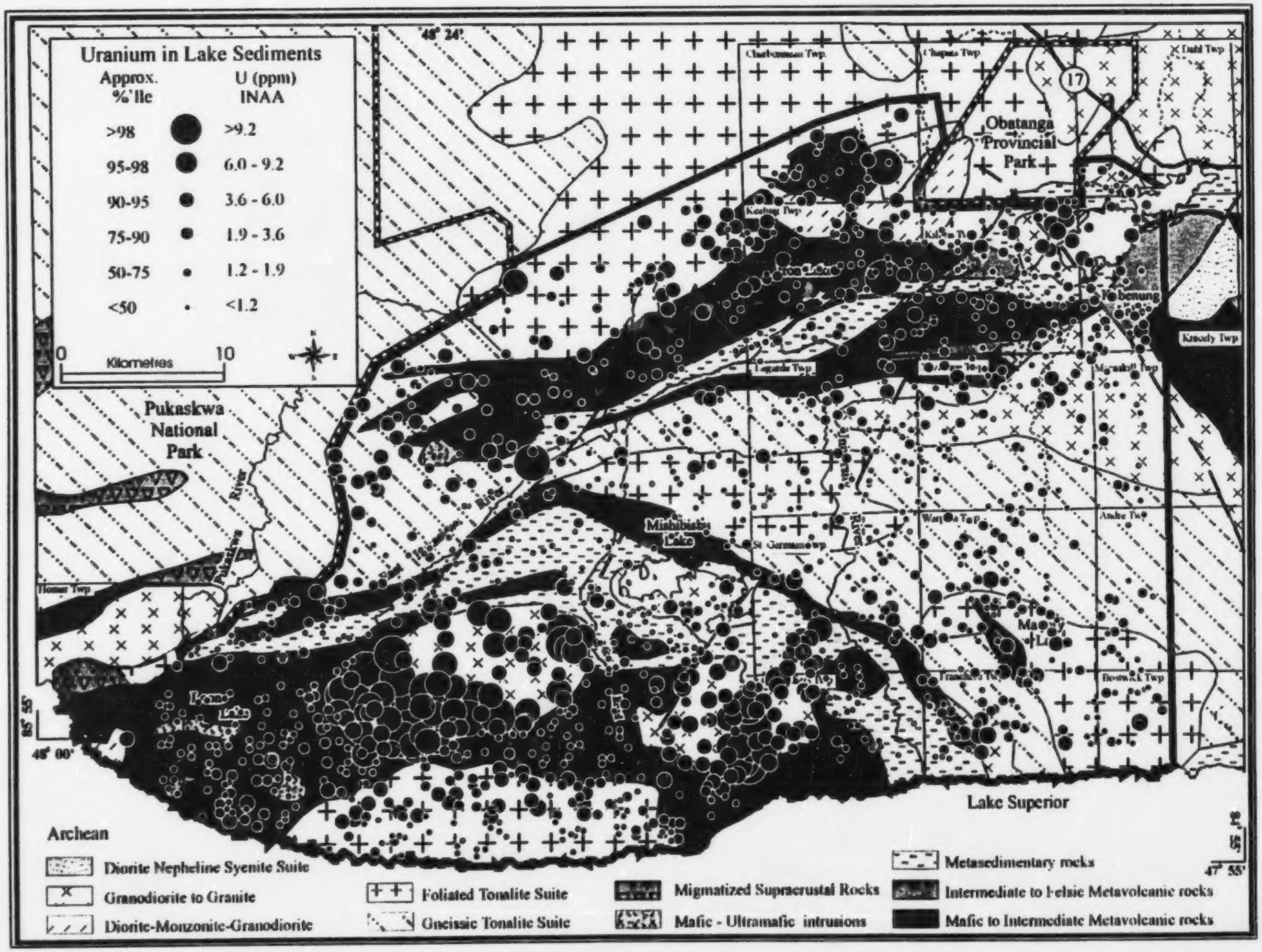

Platinum in Lake Sediments
Approx. %'ile
Pt (ppb) ICP-MS/ FA
>98 >1.8
95 - 98 1.2 - 1.8
50 - 95 0.5 - 1.2
≤50 ≤0.5
0 Kilometres 10
Pukaskwa National Park
Obatanga Provincial Park
17
Iron Lake
Kabenung Lake
Mishibishu Lake
Mariory Lake
Lake Superior
University River
East Pukaskwa River
Pukaskwa River
Charlevoix Twp
Chapais Twp
Dahl Twp
Keating Twp
Legarde Twp
Knecly Twp
Macaskill Twp
St Germain Twp
Homer Twp
Franchere Twp
Bostwick Twp
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

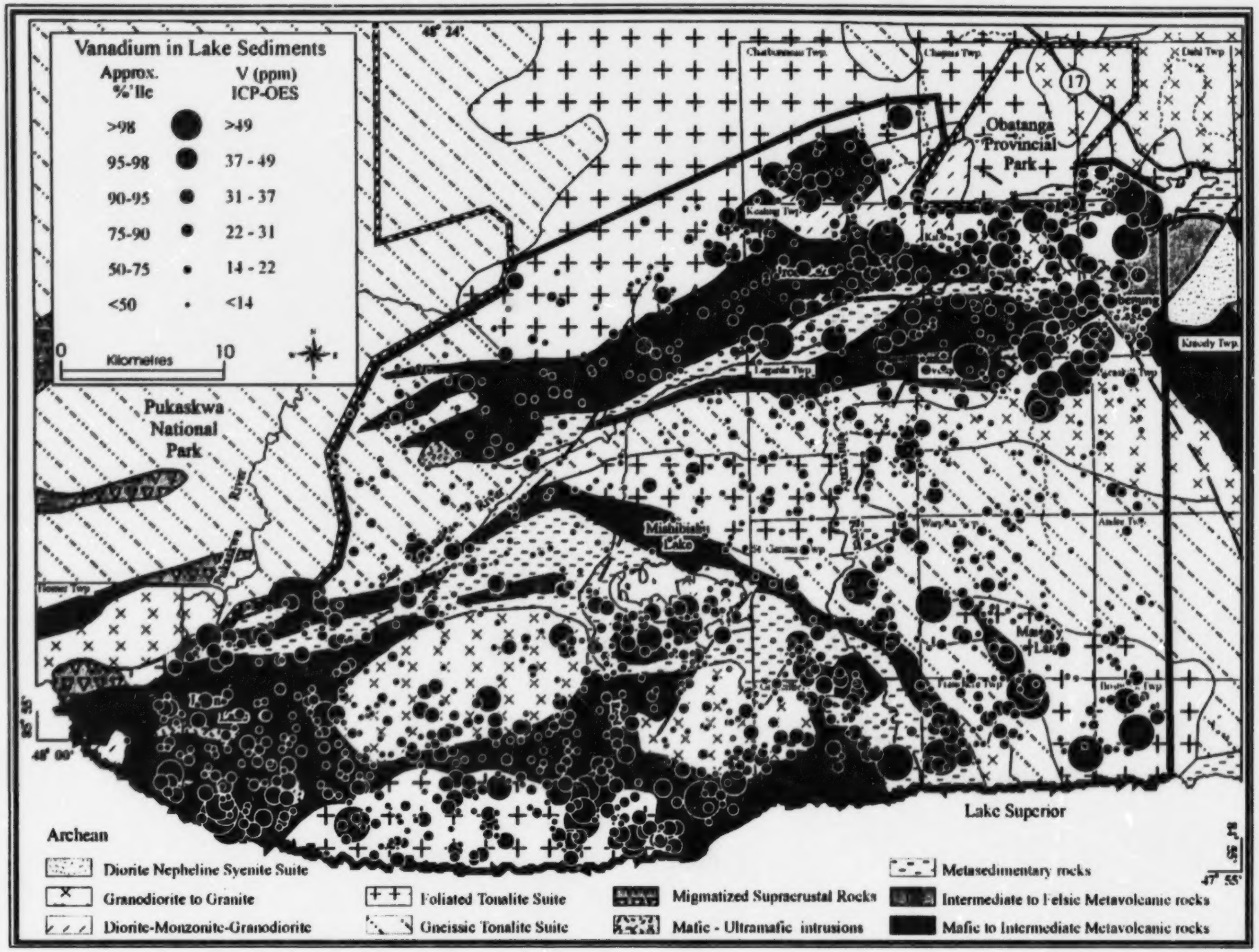

Total REEs in Lake Sediments
Approx. %'ile
La to Lu (ppm)
>98 >263.83
95-98 205.65 - 263.83
90-95 171.32 - 205.65
75-90 126.90 - 171.32
50-75 92.56 - 126.90
<50 <92.56
0
10
Kilometres
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Charbonneau Twp.
Chapais Twp
Dahl Twp
17
Obatanga Provincial Park
Kenogamisis Twp
Kinsley Twp.
Laparde Twp
Pukaskwa National Park
River
Mishibishu Lake
St Germain Twp
Homer Twp
Lake Superior
Franklin Twp
Magpie Lake
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

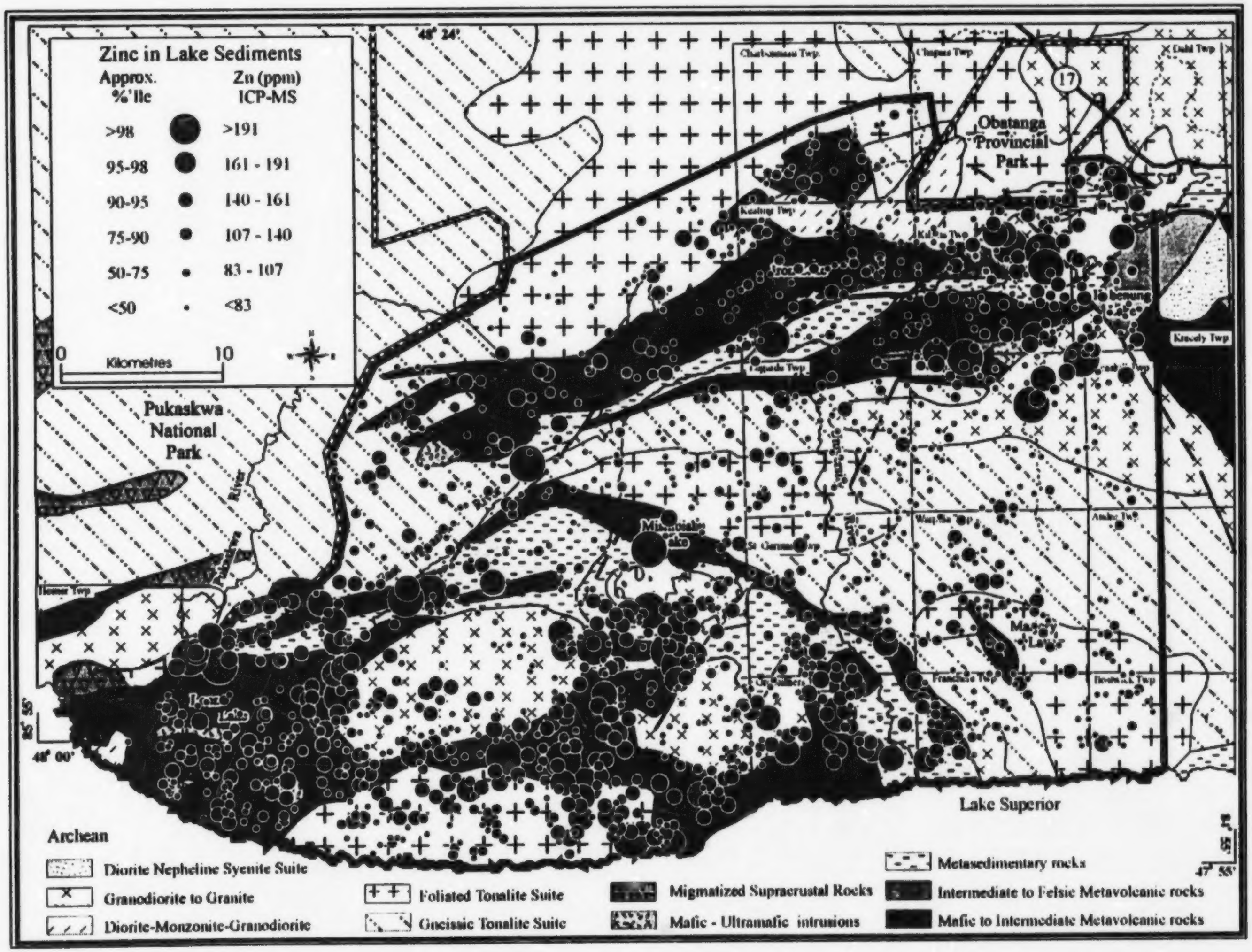

Silver in Lake Sediments
Approx. %'ile
Ag (ppm) ICP-MS
>98
> 0.35
95-98
0.30 - 0.35
90-95
0.24 - 0.29
75-90
0.18 -0.23
50-75
0.13 - 0.17
≤50
≤ 0.12
0
Kilometres
10
48° 24'
Chabonneau Twp.
Chapais Twp.
Dahl Twp
17
Obatanga Provincial Park
Keating Twp.
Iron Lake
Hobenung
Kinedy Twp.
Lepage Twp.
Mctaskill Twp.
Pukaskwa National Park
River
Mishibishu Lake
N Germain Twp.
Warpula Twp.
Arabic Twp.
University River
Homer Twp.
Fraleck Twp.
Bowman Twp.
Lake Superior
48° 00'
85° 55'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks


Titanium in Lake Sediments
Approx. %'ile
Ti (ppm) ICP-OES
>98 ● >369
95-98 ● 296 - 369
90-95 ● 247 - 296
75-90 ● 187 - 247
50-75 • 147 - 187
<50 • <147
0 Kilometres 10
48° 24'
Obatanga Provincial Park
17
Pukaskwa National Park
River
Mishibishu Lake
Keating Twp
Lagarde Twp
Homer Twp
Bostwick Twp
Lake Superior
85° 55'
48° 00'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks


Tungston in Lake Sediments
Approx. %'ile
W (ppm) ICP-MS
>99
>0.56
98-99
0.40 - 0.56
90-98
0.20 - 0.40
50-90
0.08 - 0.20
<50
<0.08
0
10
Kilometres
Pukaskwa National Park
Obatanga Provincial Park
17
Kinsely Twp.
Mishibishu Lake
University River
Pukaskwa River
Lake Superior
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks


Uranium in Lake Sediments
Approx. %'ile
U (ppm) INAA
>98 >9.2
95-98 6.0 - 9.2
90-95 3.6 - 6.0
75-90 1.9 - 3.6
50-75 1.2 - 1.9
<50 <1.2
0 Kilometres 10
48° 24'
Obatanga Provincial Park
17
Pukaskwa National Park
River
Mishibishu Lake
Lake Superior
48° 00'
85° 55'
84° 55'
47° 55'
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks


Vanadium in Lake Sediments
Approx. %'ile
V (ppm) ICP-OES
>98 >49
95-98 37 - 49
90-95 31 - 37
75-90 22 - 31
50-75 14 - 22
<50 <14
0 Kilometres 10
48° 24'
48° 00'
84° 55'
47° 55'
17
Obatanga Provincial Park
Pukaskwa National Park
Mishibishu Lake
Lake Superior
River
Chabanneau Twp.
Chapais Twp.
Dahl Twp.
Kodong Twp.
Fagueda Twp.
Knoedy Twp.
Homer Twp.
St. Germain Twp.
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks


Zinc in Lake Sediments
Approx. %'ile
Zn (ppm) ICP-MS
>98 >191
95-98 161 - 191
90-95 140 - 161
75-90 107 - 140
50-75 83 - 107
<50 <83
0 10 Kilometres
48° 24'
48° 00'
85° 55'
84° 55'
47° 55'
Pukaskwa National Park
Obatanga Provincial Park
17
Mishibishu Lake
Lake Superior
River
Archean
Diorite Nepheline Syenite Suite
Granodiorite to Granite
Diorite-Monzonite-Granodiorite
Foliated Tonalite Suite
Gneissic Tonalite Suite
Migmatized Supracrustal Rocks
Mafic - Ultramafic intrusions
Metasedimentary rocks
Intermediate to Felsic Metavolcanic rocks
Mafic to Intermediate Metavolcanic rocks

Appendix C: Selected lake sediment analyses for As, Au (INAA), Au (ICP/FA), Cu, Cr, Fe, Mn, Ni, Pb, Pd, Pt, Zn and LOI.

"Page 50, a blank page,
was inadvertantly omitted
during photo reproduction of this report."

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------>	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------>	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0001	645012.00	5347516.00	99-JJ-0001	2	1	-6	34	33	15667	525	18	5.5	-0.6	0.6	123	26.14
0002	645012.00	5345356.00	99-JJ-0002	2	2	-3	39	34	17810	468	16	7.0	0.9	0.7	110	35.98
0003	646387.00	5348811.00	99-JJ-0003	3	3	-3	34	35	15913	364	22	5.0	-0.3	-0.3	104	28.5
0004	647682.00	5346916.00	99-JJ-0004	4	<1	-3	43	27	65782	2142	19	6.3	0.4	-0.3	165	38.09
0005	647856.00	5348030.00	99-JJ-0005	2	<1	-3	25	32	16677	345	17	3.8	-0.3	0.4	90	23.29
0006	647537.00	5349631.00	99-JJ-0006	3	<1	-3	32	21	63447	3681	20	5.4	-0.3	-0.3	149	30.6
0007	648577.00	5348916.00	99-JJ-0007	3	1	-3	33	35	38478	999	17	9.7	-0.3	-0.3	155	37.51
0008	643992.00	5346606.00	99-JJ-0008	2	<1	-3	34	39	23405	567	17	6.3	-0.3	1.4	124	35.36
0009	644687.00	5345586.00	99-JJ-0009	3	1	-3	42	41	19963	751	23	5.1	-0.3	0.5	125	26.58
0010	615043.11	5313799.75	99-JJ-0011	1	<1	-3	37	23	8221	149	14	8.6	0.4	0.3	113	47.86
0011	612785.00	5317460.00	99-JJ-0012	2	1	n/a	37	26	10422	144	17	12.5	n/a	n/a	144	51.9
0012	612457.00	5318461.00	99-JJ-0013	2	<1	-3	32	19	10438	140	11	14.5	-0.3	0.4	128	60.19
0013	612212.00	5318956.00	99-JJ-0014	2	<1	-4	11	9	1616	24	8	14.6	-0.4	-0.4	35	73.04
0014	612193.00	5319900.00	99-JJ-0015	2	<1	-19	12	12	3888	44	12	14.4	-1.9	-1.9	64	46.15
0015	612596.00	5321870.00	99-JJ-0016	2	<1	-3	33	26	5654	137	12	11.5	0.3	0.5	107	60.69
0016	613982.00	5320480.00	99-JJ-0017	4	1	-6	23	23	8615	140	17	17.2	-0.6	-0.6	107	50.19
0017	615274.80	5318843.44	99-JJ-0018	41	2	4	54	27	10733	121	22	7.5	-0.3	0.3	166	42
0018	615267.33	5320094.29	99-JJ-0019	2	1	-5	23	15	3345	49	15	7.0	-0.5	-0.5	72	49.69
0019	614903.60	5323102.03	99-JJ-0021	8	<1	-3	24	19	10746	122	19	11.6	0.8	-0.3	112	50.13
0020	615423.00	5324230.00	99-JJ-0022	10	3	-4	33	23	7134	197	17	11.9	0.4	0.6	136	57.24
0021	612618.00	5325300.00	99-JJ-0023	3	2	n/a	25	21	9178	121	12	12.2	n/a	n/a	79	58.19
0022	612581.36	5326585.91	99-JJ-0024	4	1	-3	32	12	3396	53	32	7.5	-0.3	0.5	87	44.07
0023	611844.15	5327922.88	99-JJ-0025	4	<1	-3	21	14	5105	66	19	10.1	-0.3	0.7	83	36.67
0024	613413.62	5329336.68	99-JJ-0026	2	<1	-3	10	11	4600	62	8	7.7	-0.3	-0.3	46	20.45
0025	613194.00	5328850.00	99-JJ-0027	2	1	-8	15	10	3112	79	9	5.2	-0.8	-0.8	36	40.23
0026	611829.00	5331340.00	99-JJ-0028	1	2	-20	27	10	3377	49	14	2.5	-2.0	-2.0	83	43.48
0027	612326.96	5333142.64	99-JJ-0029	1	1	-3	7	14	6007	76	7	6.5	-0.3	-0.3	50	22.29
0028	612364.28	5334414.72	99-JJ-0031	2	2	-3	15	16	4921	56	13	7.6	-0.3	0.3	87	41.66
0029	611961.82	5337437.04	99-JJ-0032	2	2	-3	40	13	6935	71	10	5.9	0.3	0.4	106	45.24
0030	611889.40	5338455.75	99-JJ-0033	1	2	-4	65	6	1900	29	13	1.6	-0.4	-0.4	124	58.61
0031	611450.00	5340500.00	99-JJ-0034	2	<1	n/a	36	13	4365	44	14	5.0	n/a	n/a	87	42.35
0032	611851.40	5343354.48	99-JJ-0035	2	1	n/a	15	7	5014	74	9	3.6	n/a	n/a	53	41.74
0033	612267.11	5344776.22	99-JJ-0036	1	1	-3	25	11	5938	81	12	4.5	-0.3	-0.3	69	34.56
0034	617652.00	5347970.00	99-JJ-0037	1	<1	-5	17	18	7336	72	11	3.1	-0.5	-0.5	87	40.92
0035	620123.00	5348680.00	99-JJ-0038	2	<1	-3	21	12	3735	73	16	9.1	-0.3	-0.3	51	49.56
0036	620912.00	5348800.00	99-JJ-0039	1	1	n/a	20	9	4155	50	12	5.4	n/a	n/a	43	35.38
0037	621368.77	5347910.92	99-JJ-0041	2	<1	-4	25	12	3228	36	16	6.4	0.9	0.6	57	42.75
0039	620336.00	5346860.00	99-JJ-0043	2	3	n/a	32	22	10953	103	23	4.7	n/a	n/a	144	50.98
0040	621518.00	5346610.00	99-JJ-0044	3	2	n/a	31	13	3753	44	18	3.0	n/a	n/a	108	61.13
0041	622689.37	5347484.51	99-JJ-0045	1	<1	-18	21	8	1553	20	12	1.8	5.5	-1.8	26	65.66
0042	623277.00	5347580.00	99-JJ-0046	2	<1	-5	16	11	6424	51	18	9.6	-0.5	-0.5	80	49.12
0043	622779.51	5348323.59	99-JJ-0047	4	<1	n/a	34	17	9254	261	18	15.1	n/a	n/a	92	52.39
0044	623171.85	5346420.97	99-JJ-0048	2	2	-4	14	8	3993	58	10	4.7	-0.4	-0.4	52	43.36
0045	623217.00	5345890.00	99-JJ-0049	<1	<1	-3	23	16	9642	100	12	3.9	-0.3	-0.3	79	51.37
0046	622780.51	5345830.33	99-JJ-0051	1	1	-3	21	11	3427	39	16	6.5	-0.3	0.4	58	43.37
0047	622034.00	5345980.00	99-JJ-0052	2	<1	n/a	44	23	18525	202	16	7.1	n/a	n/a	91	61.8
0048	619001.00	5342500.00	99-JJ-0053	3	3	-4	58	11	3541	34	11	1.6	-0.4	-0.4	40	37.49
0049	617678.08	5340241.52	99-JJ-0054	3	<1	-3	34	19	13331	269	13	12.9	0.5	0.5	113	41.28
0050	618241.87	5339823.03	99-JJ-0055	3	1	n/a	53	13	11393	49	12	4.9	n/a	n/a	93	56.39
0051	616681.00	5338580.00	99-JJ-0056	3	1	-3	47	16	8711	105	17	2.6	0.7	0.4	85	43.04
0052	615044.00	5339270.00	99-JJ-0057	2	2	n/a	32	7	2774	59	9	2.9	n/a	n/a	108	58.94
0053	614422.00	5338690.00	99-JJ-0058	2	1	n/a	34	8	3546	50	8	3.1	n/a	n/a	90	62.81
0054	613864.05	5339717.82	99-JJ-0059	2	3	-3	60	8	3275	30	10	4.4	-0.3	-0.3	61	47.1
0055	612244.17	5317708.95	99-JJ-0061	1	<1	n/a	25	15	4315	49	20	6.9	n/a	n/a	127	48.43
0056	612772.00	5321710.00	99-JJ-0062	2	1	-8	34	31	9396	236	12	9.5	-0.8	-0.8	187	60.91
0057	612572.00	5322650.00	99-JJ-0063	3	5	n/a	54	44	13589	210	24	7.4	n/a	n/a	183	45.62
0058	614634.00	5331990.00	99-JJ-0064	3	<1	-6	14	6	3084	48	10	14.1	-0.6	-0.6	78	55.88
0059	614130.68	5331563.36	99-JJ-0065	2	1	-12	17	7	4465	64	14	8.7	-1.2	-1.2	54	57.83
0060	612512.00	5335460.00	99-JJ-0066	3	2	-3	120	19	16049	78	39	8.9	1.3	0.7	150	50.34
0061	612830.00	5337330.00	99-JJ-0067	1	<1	-5	37	7	3622	36	9	5.1	1.0	-0.5	65	42.56
0062	613694.00	5336770.00	99-JJ-0068	1	1	-7	26	8	3481	72	9	3.6	1.0	1.7	80	58.2
0063	611378.83	5338664.92	99-JJ-0069	1	2	-3	59	12	4794	66	11	7.8	0.4	0.8	108	41.37

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0064	612462.00	5343006.00	99-JJ-0071	2	<1	-8	25	8	3754	42	12	7.5	-0.8	-0.8	82	54.79
0065	614816.00	5345140.00	99-JJ-0072	1	4	n/a	25	10	3275	31	9	5.4	n/a	n/a	24	45.84
0066	619427.00	5343746.00	99-JJ-0073	2	1	-3	25	14	3682	47	13	3.2	-0.3	0.5	74	41.68
0067	618750.23	5343394.28	99-JJ-0074	1	1	-14	35	23	10129	227	13	3.8	1.6	-1.4	131	50.44
0069	618486.00	5344530.00	99-JJ-0076	2	1	n/a	26	18	5005	59	13	6.0	n/a	n/a	114	62.7
0070	618905.23	5345049.48	99-JJ-0077	1	<1	-7	21	9	4569	51	8	13.9	-0.7	-0.7	96	33.12
0071	618001.00	5345170.00	99-JJ-0078	2	1	-3	33	15	4964	54	16	4.2	-0.3	-0.3	75	33.59
0072	617831.93	5344523.42	99-JJ-0079	1	2	-11	24	11	4156	45	11	6.7	-1.1	-1.1	35	55.27
0073	617242.00	5344300.00	99-JJ-0081	1	1	-3	12	9	2600	36	11	4.7	3.1	0.3	50	41.76
0074	616785.64	5344073.46	99-JJ-0082	1	<1	-3	13	6	1786	30	8	2.8	4.3	0.4	26	60.07
0075	616647.08	5343708.07	99-JJ-0083	1	1	4	14	9	2461	36	13	8.4	4.6	0.5	33	52.74
0076	614574.32	5342635.72	99-JJ-0084	2	2	-3	16	8	2472	39	12	6.3	1.8	1.2	78	49.16
0078	615661.46	5341085.81	99-JJ-0086	2	<1	-6	14	14	6670	171	10	5.0	1.8	2.0	91	37.56
0079	618334.00	5338490.00	99-JJ-0087	2	2	-3	43	13	6529	76	11	3.7	1.0	0.4	90	55.46
0080	617409.00	5338280.00	99-JJ-0088	2	<1	n/a	32	13	11962	86	20	5.7	n/a	n/a	80	26.24
0081	616151.00	5333110.00	99-JJ-0089	2	<1	-3	23	14	3735	33	15	4.3	4.4	0.4	90	53.36
0082	615241.00	5327800.00	99-JJ-0091	3	3	3	18	17	4646	71	17	6.3	1.3	0.6	76	38.83
0083	614624.07	5324477.05	99-JJ-0092	18	2	4	27	24	9845	381	13	34.4	4.5	0.6	130	54.28
0084	614696.00	5321890.00	99-JJ-0093	12	<1	4	16	26	8857	335	15	35.0	1.3	0.6	133	58.87
0085	613816.00	5319390.00	99-JJ-0094	2	<1	-3	27	21	4012	66	24	10.1	8.0	0.4	122	58.24
0086	615620.00	5317630.00	99-JJ-0095	5	7	-4	31	20	5817	73	25	5.5	-0.4	0.6	144	59.08
0087	615921.42	5316021.22	99-JJ-0096	2	1	8	28	27	7971	158	17	7.0	4.4	0.7	131	51.05
0088	615424.78	5314780.42	99-JJ-0097	2	1	-3	28	21	5960	98	14	5.4	0.4	0.5	115	46.39
0089	615907.26	5313417.21	99-JJ-0098	3	<1	-3	26	24	9144	145	12	9.1	1.6	0.7	98	39.15
0090	616303.92	5312428.24	99-JJ-0099	2	<1	6	19	18	5978	136	10	5.4	1.7	0.5	96	46.97
0091	615915.04	5312152.77	99-JJ-0101	2	1	-3	12	13	4024	47	12	13.8	-0.3	0.5	83	40.35
0092	615322.14	5311901.65	99-JJ-0102	3	1	-3	22	24	11052	259	12	9.9	-0.3	0.6	108	33.64
0093	614469.02	5311330.88	99-JJ-0103	1	1	-3	10	13	3264	43	8	10.7	0.7	0.5	43	39.82
0094	613770.00	5311310.00	99-JJ-0104	7	<1	-3	33	43	27506	1211	28	37.5	2.8	0.9	167	40.72
0095	613800.00	5311970.00	99-JJ-0105	2	2	-3	26	23	18609	278	11	10.2	4.8	0.5	129	57.5
0096	613415.41	5312323.20	99-JJ-0106	2	1	-3	22	20	7495	141	15	16.5	-0.3	0.4	133	37.61
0097	613368.04	5312995.31	99-JJ-0107	4	1	n/a	30	14	51991	403	9	15.1	n/a	n/a	90	71.13
0098	614847.00	5318100.00	99-JJ-0108	4	2	-3	26	17	5730	146	20	18.5	-0.3	0.4	146	51.68
0099	615244.78	5320227.65	99-JJ-0109	1	1	-3	27	17	3817	60	17	5.6	1.4	0.5	85	50.56
0100	615726.00	5320390.00	99-JJ-0111	3	2	6	29	23	4661	50	23	6.9	1.1	0.5	131	57.09
0101	613239.00	5321500.00	99-JJ-0112	3	1	-3	15	19	4719	45	14	15.6	3.6	0.5	98	43.5
0102	613098.63	5322306.64	99-JJ-0113	1	1	-3	12	18	5855	62	11	7.7	-0.3	-0.3	70	43.98
0103	613770.00	5322330.00	99-JJ-0114	2	<1	16	11	17	4950	54	10	11.7	1.0	0.4	79	37.8
0104	613795.95	5324407.34	99-JJ-0115	<1	1	-3	12	14	3663	49	10	6.5	-0.3	0.4	76	39.27
0105	614591.42	5325238.89	99-JJ-0116	3	1	-3	14	10	2749	46	11	18.7	1.3	0.4	66	59.48
0106	614201.26	5325308.45	99-JJ-0117	2	1	-3	17	21	3369	40	20	7.0	1.3	0.4	80	50.55
0107	612973.36	5325636.66	99-JJ-0118	5	1	-3	35	22	5547	129	14	11.0	-0.3	-0.3	96	54.74
0108	613671.77	5326531.44	99-JJ-0119	3	1	-3	38	14	3479	45	23	9.9	0.8	0.7	96	42.26
0109	614688.76	5328297.62	99-JJ-0121	3	1	-3	11	13	3536	52	10	9.5	0.3	0.5	59	30.38
0110	615529.00	5331690.00	99-JJ-0122	1	<1	-3	13	19	3784	44	10	8.1	1.4	0.5	51	38.03
0111	616393.00	5331580.00	99-JJ-0123	2	2	-3	37	9	2869	49	12	3.5	0.7	0.6	107	55.57
0112	614133.33	5333694.69	99-JJ-0124	<1	<1	-3	11	6	2241	30	9	3.1	0.5	0.6	36	57.51
0113	616120.00	5333540.00	99-JJ-0125	3	1	-3	12	14	5795	51	9	8.4	0.5	0.5	55	29.99
0114	616239.70	5334919.70	99-JJ-0126	1	1	-4	28	12	1881	39	9	2.4	-0.4	-0.4	93	70.02
0115	614288.65	5338829.42	99-JJ-0127	1	<1	-3	31	8	3077	39	8	2.9	1.7	0.3	65	60.04
0117	619811.87	5338799.15	99-JJ-0129	2	<1	-5	42	10	2528	35	14	2.4	-0.5	-0.5	83	71.09
0118	619163.05	5338433.52	99-JJ-0131	1	<1	-3	59	16	4776	83	18	2.8	1.8	1.3	113	66.45
0119	619640.85	5339473.57	99-JJ-0132	1	<1	7	28	11	3253	51	12	4.7	1.6	0.7	69	54.86
0120	619653.00	5340470.00	99-JJ-0133	2	<1	-3	38	12	4327	50	12	1.9	1.3	0.8	67	55.82
0121	619140.82	5340037.74	99-JJ-0134	1	1	-3	31	8	2610	39	14	1.8	0.8	0.6	65	60.78
0122	621262.37	5342360.75	99-JJ-0135	3	<1	6	44	11	4932	32	9	2.8	4.7	1.4	65	42.21
0123	623047.82	5341923.69	99-JJ-0136	<1	<1	-3	37	17	6797	90	10	3.6	-0.3	0.4	95	29.91
0124	623505.00	5342500.00	99-JJ-0137	1	<1	-4	37	9	4269	49	9	2.4	0.8	0.6	68	58.92
0125	622671.00	5342860.00	99-JJ-0138	1	<1	5	44	6	1761	32	11	1.6	2.9	0.6	56	63.56
0126	623163.29	5343428.85	99-JJ-0139	1	<1	-3	25	5	1974	39	10	2.1	1.4	0.3	53	71.97
0127	623838.00	5343680.00	99-JJ-0141	<1	<1	-3	20	11	3507	51	6	3.5	-0.3	-0.3	19	32.3

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0128	624339.00	5344030.00	99-JJ-0142	2	<1	5	60	16	4278	62	22	1.9	2.6	-0.4	106	59.5
0129	625082.00	5344330.00	99-JJ-0143	1	1	3	58	10	4262	34	15	3.7	1.0	0.5	59	53.66
0130	625097.00	5344650.00	99-JJ-0144	<1	<1	-3	56	13	3413	38	14	2.6	-0.3	-0.3	60	55.4
0131	625727.00	5344597.17	99-JJ-0145	2	1	-3	33	11	5247	94	13	6.9	1.2	0.6	68	46.21
0132	627477.00	5345000.00	99-JJ-0146	1	1	-3	21	18	16102	194	13	3.6	0.3	0.4	99	13.12
0133	628357.00	5344980.00	99-JJ-0147	2	<1	n/a	76	18	3381	41	24	1.9	n/a	n/a	104	75.2
0134	629267.00	5344910.00	99-JJ-0148	2	<1	-3	34	15	8390	131	13	4.8	1.9	0.5	74	51.55
0135	629659.44	5345204.00	99-JJ-0149	1	<1	-3	27	4	1255	25	13	5.6	-0.3	0.3	34	58.3
0136	630298.00	5345230.00	99-JJ-0151	1	<1	-6	50	10	2584	53	13	2.1	1.7	-0.6	79	63.97
0138	627144.52	5342624.49	99-JJ-0153	2	6	-3	175	11	32446	560	33	3.7	-0.3	0.9	84	58.07
0139	625036.00	5340480.00	99-JJ-0154	4	2	n/a	9	<4	1385	36	<5	2.1	n/a	n/a	11	45.24
0140	624687.00	5339250.00	99-JJ-0155	3	1	-8	25	7	1738	43	15	3.6	1.6	1.2	95	79.1
0141	624051.00	5336270.00	99-JJ-0156	2	<1	-3	24	20	6323	119	14	4.3	-0.3	0.4	72	46.37
0142	622095.00	5333430.00	99-JJ-0157	1	<1	-3	28	13	3978	44	16	3.2	-0.3	0.4	71	55.78
0143	620662.60	5332733.84	99-JJ-0158	25	2	-10	35	17	3051	116	24	3.4	2.2	1.7	97	79.22
0144	620457.00	5332190.00	99-JJ-0159	3	72	49	22	17	5100	115	13	9.2	-0.3	0.6	74	49.78
0145	620981.42	5330834.72	99-JJ-0161	2	1	-3	20	15	5198	58	13	3.3	-0.3	-0.3	74	53.08
0146	620669.00	5330200.00	99-JJ-0162	2	<1	n/a	37	10	2087	29	20	3.8	n/a	n/a	76	53.86
0147	619361.23	5329642.21	99-JJ-0163	2	1	-5	37	13	3549	46	19	5.1	-0.5	-0.5	144	64.41
0148	619132.34	5328508.16	99-JJ-0164	2	2	-3	7	15	3875	54	7	9.5	-0.3	-0.3	44	26.61
0149	618110.00	5327732.87	99-JJ-0165	10	1	-3	63	52	7031	76	114	6.1	3.9	2.3	211	48.55
0150	616839.00	5323850.00	99-JJ-0166	20	<1	-5	30	23	7114	102	30	37.9	-0.5	-0.5	182	58.96
0151	616262.21	5319097.44	99-JJ-0167	1	2	-3	13	18	4624	51	9	8.3	-0.3	0.4	31	39.05
0152	616297.51	5318144.87	99-JJ-0168	2	<1	-3	15	17	3842	38	10	17.1	1.1	0.4	40	46.97
0153	615908.00	5316520.00	99-JJ-0169	2	1	-3	31	27	9031	243	15	9.9	-0.3	0.4	165	59.92
0154	614816.00	5314750.00	99-JJ-0171	2	<1	-3	36	26	9650	152	14	8.2	-0.3	0.6	129	51.55
0155	614786.00	5313250.00	99-JJ-0172	2	1	-3	34	22	21193	191	11	10.7	-0.3	0.4	98	64.44
0156	614058.00	5313250.00	99-JJ-0173	2	1	-3	33	29	10715	69	14	4.8	0.9	0.6	291	38.36
0157	612348.49	5313080.98	99-JJ-0174	3	3	-3	30	24	14956	131	11	8.2	-0.3	0.5	106	65.71
0158	612746.93	5313480.70	99-JJ-0175	2	1	-3	28	19	10460	108	13	5.0	-0.3	0.6	176	54.96
0159	613854.00	5312596.10	99-JJ-0176	2	<1	-3	48	33	15216	299	11	9.0	1.6	0.6	168	62.56
0160	613022.06	5312072.15	99-JJ-0177	1	3	-3	33	20	6005	62	17	6.8	-0.3	0.6	126	50.59
0161	612051.16	5311273.04	99-JJ-0178	1	4	-3	19	16	6195	91	15	6.0	-0.3	0.4	91	35.52
0162	613085.00	5310000.00	99-JJ-0179	3	3	6	26	25	17868	526	14	8.0	2.1	-0.4	146	55.2
0163	613330.00	5310380.00	99-JJ-0181	2	1	-3	17	12	3108	44	13	7.1	-0.3	0.5	82	44.51
0164	613619.00	5310310.00	99-JJ-0182	2	2	-5	21	11	9388	190	11	6.0	0.8	-0.5	128	68.87
0165	612345.00	5310350.00	99-JJ-0183	7	1	-4	20	17	14737	471	13	30.9	-0.4	0.5	129	58.38
0166	612946.00	5310070.00	99-JJ-0184	3	<1	-6	24	26	16246	511	14	10.0	-0.6	-0.6	152	54.73
0167	612402.40	5309803.49	99-JJ-0185	3	2	-3	12	13	5391	88	9	19.6	-0.3	0.5	68	57.97
0168	613048.90	5308986.96	99-JJ-0186	2	1	-3	19	18	8519	92	10	6.4	2.6	1.0	103	55.07
0169	615832.00	5310060.00	99-JJ-0187	2	1	-3	25	19	9659	197	9	8.1	-0.3	0.3	108	62.27
0170	615696.00	5310590.00	99-JJ-0188	2	<1	-3	20	17	6085	91	10	4.8	-0.3	-0.3	93	45.85
0171	616157.31	5310523.98	99-JJ-0189	3	<1	-3	17	17	14508	93	12	6.1	-0.3	0.3	108	61.98
0172	616943.85	5310366.98	99-JJ-0191	2	1	-3	22	22	15964	508	8	11.3	-0.3	0.3	115	58.37
0173	616931.33	5309947.23	99-JJ-0192	3	2	-3	24	25	25813	537	10	9.9	-0.3	0.3	202	59
0174	618488.58	5310169.34	99-JJ-0193	1	<1	-3	13	12	4333	62	9	4.4	-0.3	-0.3	76	59.03
0175	618354.66	5310044.19	99-JJ-0194	2	1	-3	16	24	11778	264	11	6.9	-0.3	0.4	149	58.72
0176	618658.62	5310051.94	99-JJ-0195	2	2	-3	19	25	8946	107	10	6.9	-0.3	-0.3	81	55.54
0177	619090.03	5309664.85	99-JJ-0196	2	1	-3	9	14	3952	47	10	9.9	-0.3	-0.3	79	40.55
0178	619525.41	5309747.28	99-JJ-0197	3	<1	-3	20	28	15036	376	12	5.7	-0.3	0.3	173	43.92
0179	619081.59	5310195.51	99-JJ-0198	2	1	-3	36	19	10490	89	15	5.7	-0.3	2.9	109	52.71
0180	619138.00	5310780.00	99-JJ-0199	<1	<1	-3	14	16	6626	105	9	5.5	-0.3	-0.3	62	52.15
0181	619545.69	5310778.89	99-JJ-0201	2	1	-3	11	17	8528	123	11	5.4	-0.3	-0.3	95	41
0182	617606.00	5310580.00	99-JJ-0202	2	2	-3	20	25	9736	199	10	9.1	-0.3	-0.3	118	63.87
0183	617288.00	5311470.00	99-JJ-0203	2	1	-3	18	20	11822	139	10	8.0	-0.3	0.7	106	41.64
0184	617034.91	5312753.72	99-JJ-0204	3	<1	-3	19	15	6605	73	10	12.7	-0.3	0.4	114	46.56
0185	617234.37	5313613.07	99-JJ-0205	3	<1	-3	18	17	5080	59	12	12.3	-0.3	-0.3	106	38.69
0186	616354.23	5311481.04	99-JJ-0206	2	1	-3	14	15	5061	81	8	4.9	-0.3	0.6	128	47.71
0187	616087.91	5311184.99	99-JJ-0207	3	1	-3	12	16	3954	55	11	7.1	-0.3	0.7	100	39.74
0188	615663.02	5311432.73	99-JJ-0208	2	<1	-3	17	7	5460	85	6	3.2	0.8	0.3	181	65.45
0190	617925.00	5310760.00	99-JJ-0211	3	<1	-3	19	20	9860	136	9	9.4	-0.3	0.4	66	59.73

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------>	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units--------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0191	618657.56	5310939.91	99-JJ-0212	1	2	-3	10	9	2708	33	7	6.8	-0.3	0.5	72	44.73
0192	619646.71	5312452.17	99-JJ-0213	2	1	-3	19	16	5454	65	11	12.0	-0.3	0.4	123	41.51
0193	618688.69	5313323.74	99-JJ-0214	1	1	-3	29	24	8966	188	10	6.2	-0.3	0.4	145	46.16
0194	616499.00	5315400.00	99-JJ-0215	3	2	-5	38	29	9020	131	14	10.1	-0.5	-0.5	141	61.37
0197	622595.00	5325210.00	99-JJ-0218	2	1	-3	30	42	8241	167	22	9.8	0.3	0.6	133	48.84
0198	622898.00	5328120.00	99-JJ-0219	7	3	-3	26	23	5206	106	17	7.9	-0.3	0.3	93	45.32
0199	624869.00	5333370.00	99-JJ-0221	4	1	-3	21	22	11058	135	12	4.0	1.7	0.6	118	41.17
0200	626386.00	5336800.00	99-JJ-0222	9	23	19	20	25	13510	369	12	43.9	5.6	0.5	144	45.48
0201	625042.04	5340481.47	99-JJ-0223	4	2	-3	32	15	7517	213	9	25.0	1.2	0.6	61	66.96
0202	626214.95	5343313.22	99-JJ-0224	2	1	-3	32	14	5942	109	17	2.4	-0.3	0.5	80	58.06
0203	626224.23	5345535.65	99-JJ-0225	2	2	-3	22	14	6367	94	11	6.7	-0.3	0.4	86	36.1
0204	625184.78	5347963.11	99-JJ-0226	1	1	-3	33	16	4255	46	25	2.8	-0.3	0.4	82	65.21
0205	625097.00	5347270.00	99-JJ-0227	2	<1	-3	37	17	5317	55	26	3.3	-0.3	0.4	115	64.43
0206	625491.00	5347240.00	99-JJ-0228	2	<1	-3	26	14	4975	51	17	9.4	-0.3	0.4	87	47.34
0207	624612.00	5346480.00	99-JJ-0229	2	<1	-3	23	15	10678	123	10	10.2	-0.3	0.3	76	49.24
0208	623986.86	5346737.10	99-JJ-0231	2	<1	-3	10	<4	2106	31	<5	3.4	-0.3	-0.3	33	41.78
0209	623931.59	5347294.92	99-JJ-0232	3	<1	-3	8	6	4435	60	6	13.9	0.6	0.4	66	72.68
0210	624627.00	5349310.00	99-JJ-0233	2	<1	-3	18	10	5141	124	14	7.9	1.8	0.4	51	49.29
0211	625830.79	5349251.68	99-JJ-0234	1	2	-3	30	16	5542	69	19	4.5	-0.3	0.4	79	56
0212	625471.08	5350244.12	99-JJ-0235	1	1	-3	22	13	3159	35	18	6.2	2.9	1.1	62	50.26
0213	625637.10	5350927.36	99-JJ-0236	2	2	-3	38	24	18931	163	15	5.1	-0.3	0.4	105	63.73
0214	626158.00	5350790.00	99-JJ-0237	1	2	-3	35	18	7572	81	16	4.6	0.9	0.5	99	50.3
0215	626932.00	5350870.00	99-JJ-0238	1	2	-3	32	22	6894	67	22	4.7	1.9	0.5	92	42.03
0216	627114.00	5351280.00	99-JJ-0239	2	<1	-3	24	12	3408	39	14	8.9	-0.3	0.3	36	54.32
0217	628236.00	5352220.00	99-JJ-0241	1	<1	-4	37	14	3850	43	25	4.4	-0.4	-0.4	75	58.44
0218	628478.00	5352640.00	99-JJ-0242	1	1	-7	38	17	6252	70	19	4.2	3.3	1.1	102	62.61
0219	628342.00	5353260.00	99-JJ-0243	2	2	-3	22	10	3394	46	10	6.0	1.6	0.4	37	57.37
0220	630318.79	5352654.04	99-JJ-0244	2	<1	-3	50	175	3790	104	21	4.6	2.7	0.5	90	56
0221	631029.17	5353233.46	99-JJ-0245	2	2	-3	27	12	6930	80	20	9.8	-0.3	0.5	67	41.18
0222	631429.65	5351739.55	99-JJ-0246	1	<1	-3	71	18	5918	40	32	6.4	-0.3	0.8	103	51.99
0223	629676.00	5351020.00	99-JJ-0247	1	<1	-3	36	13	3632	38	16	3.3	-0.3	0.6	61	50.18
0224	628645.00	5350610.00	99-JJ-0248	2	<1	-3	33	18	6934	80	18	4.0	-0.3	0.3	87	50.08
0225	627902.00	5350320.00	99-JJ-0249	2	<1	-5	48	15	7912	242	14	3.1	-0.5	0.7	135	57.66
0226	627788.08	5349325.45	99-JJ-0251	1	<1	-3	64	16	20430	138	17	3.9	-0.3	0.5	89	60.08
0227	627265.00	5349180.00	99-JJ-0252	2	<1	-3	35	13	2715	30	25	3.7	0.3	0.5	61	53.17
0228	627114.00	5347500.00	99-JJ-0253	1	1	-3	17	9	3648	38	18	4.1	-0.3	-0.3	45	46.51
0229	626808.11	5346673.17	99-JJ-0254	1	1	-3	23	12	4778	62	14	4.4	-0.3	0.4	80	34.27
0230	629359.19	5347895.89	99-JJ-0255	1	2	-3	37	19	5787	83	17	3.0	-0.3	-0.3	61	47.62
0231	629322.63	5347216.98	99-JJ-0256	1	1	-3	25	12	4695	55	13	3.2	-0.3	-0.3	50	40.8
0232	630298.00	5348790.00	99-JJ-0257	2	<1	-3	58	20	9740	288	15	8.8	-0.3	0.8	75	47.76
0233	630835.76	5345980.66	99-JJ-0258	1	1	-3	56	26	8863	150	16	3.4	0.6	0.7	97	49.57
0235	633012.00	5348120.00	99-JJ-0261	<1	2	-3	12	9	8017	83	7	1.9	-0.3	-0.3	38	12.97
0236	632572.00	5347520.00	99-JJ-0262	2	2	7	33	14	9382	69	15	6.7	-0.3	-0.3	77	39.73
0237	632593.76	5347027.30	99-JJ-0263	2	2	-3	58	21	8956	56	12	3.2	0.9	0.5	61	30.86
0238	632531.97	5345685.45	99-JJ-0264	2	1	-6	35	15	5787	248	13	7.3	1.3	-0.6	85	66.77
0239	630250.95	5343322.68	99-JJ-0265	2	<1	-3	45	19	9210	138	19	5.3	0.7	0.3	105	46.72
0240	629623.74	5343469.16	99-JJ-0266	2	<1	-3	31	17	18736	826	15	4.1	-0.3	0.5	136	21.93
0241	628888.00	5341840.00	99-JJ-0267	2	<1	-3	35	18	4218	84	22	4.0	-0.3	0.4	71	67.44
0242	629631.40	5341350.14	99-JJ-0268	1	1	-3	79	19	7826	68	12	5.3	0.4	0.5	53	53.39
0243	629388.00	5340860.00	99-JJ-0269	5	<1	-3	51	28	15577	419	13	4.7	1.0	0.6	97	37.14
0245	627781.00	5341420.00	99-JJ-0272	6	<1	-3	59	26	6541	53	14	3.7	1.6	0.7	81	53.76
0246	627341.00	5340810.00	99-JJ-0273	1	<1	n/a	15	6	1584	24	9	1.9	n/a	n/a	82	75.69
0248	613425.23	5315620.72	99-JJ-0275	1	2	-3	30	22	6823	122	24	10.1	0.7	0.4	117	42.2
0249	611966.00	5317070.00	99-JJ-0276	1	<1	-3	26	20	7374	82	22	8.2	-0.3	0.3	148	54.35
0250	610070.53	5317019.52	99-JJ-0277	5	<1	-3	43	26	11968	157	16	8.5	0.6	1.2	161	52.05
0251	610722.00	5320600.00	99-JJ-0278	2	<1	-3	15	14	7411	58	11	7.6	-0.3	-0.3	58	47.76
0252	610233.30	5322433.53	99-JJ-0279	3	<1	-3	17	15	5338	59	10	8.4	-0.3	-0.3	56	59.41
0253	608522.72	5323344.80	99-JJ-0281	1	<1	-3	10	11	2939	26	11	5.9	-0.3	0.6	27	49.89
0254	608419.51	5325798.79	99-JJ-0282	120	5	-3	38	158	15001	428	71	6.5	1.1	1.0	172	48.01
0255	607720.00	5326830.00	99-JJ-0283	10	4	-3	24	20	5868	113	30	10.5	0.6	0.6	118	46.55
0256	609121.01	5327573.99	99-JJ-0284	5	<1	-3	19	12	3056	43	21	8.5	-0.3	0.4	55	46.57

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------>	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------>	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0257	609615.02	5329923.04	99-JJ-0285	8	2	-3	22	17	5999	97	22	6.9	-0.3	0.3	101	37.6
0258	609358.00	5330470.00	99-JJ-0286	3	2	-3	51	19	5039	62	32	7.7	0.3	0.3	119	61.75
0259	608077.85	5331323.87	99-JJ-0287	2	2	-3	17	12	3153	36	17	7.6	-0.3	-0.3	86	46.8
0260	606095.89	5333660.83	99-JJ-0288	2	<1	-3	11	6	1657	14	<5	15.4	-0.3	0.4	22	66.8
0261	608023.00	5333810.00	99-JJ-0289	2	<1	-3	16	15	6681	63	13	5.0	-0.3	-0.3	77	33.12
0262	609283.19	5334110.82	99-JJ-0291	1	<1	-3	34	18	4864	55	25	5.2	-0.3	0.4	126	41.15
0263	608418.00	5334580.00	99-JJ-0292	2	1	-3	27	20	6558	114	19	4.0	-0.3	0.3	95	49.62
0264	607772.53	5336358.33	99-JJ-0293	1	2	-3	14	13	7804	134	10	6.3	-0.3	-0.3	70	27.36
0265	609949.00	5337050.00	99-JJ-0294	<1	<1	-3	19	19	15576	172	14	5.3	-0.3	-0.3	148	13.6
0266	607614.00	5338160.00	99-JJ-0295	2	<1	-3	24	12	4023	51	13	3.1	-0.3	0.3	89	52.34
0267	606751.61	5338044.90	99-JJ-0296	3	2	-5	53	27	15183	461	16	10.3	-0.5	0.8	118	51.59
0268	609039.00	5339780.00	99-JJ-0297	2	2	-3	31	23	9377	123	17	3.3	-0.3	0.3	115	45.75
0269	610692.00	5340710.00	99-JJ-0298	1	<1	-3	18	22	11649	189	16	5.6	0.6	0.7	116	44.26
0270	609661.00	5344330.00	99-JJ-0299	2	1	-7	59	19	9957	23	9	3.9	1.6	1.0	52	38.25
0271	609145.00	5342560.00	99-JJ-0301	1	<1	-3	19	8	3052	29	14	7.5	-0.3	0.4	56	42.92
0272	608281.00	5341390.00	99-JJ-0302	<1	<1	-3	22	14	5839	60	13	2.9	-0.3	0.6	79	31.98
0273	605418.58	5340611.90	99-JJ-0303	2	<1	-3	16	13	6643	108	11	13.4	-0.3	0.5	77	37.36
0274	605278.14	5339768.31	99-JJ-0304	<1	<1	-3	18	11	4416	54	11	5.5	-0.3	0.6	59	23.77
0275	605476.00	5338110.00	99-JJ-0305	1	3	-3	22	12	3656	44	17	5.7	0.4	0.6	60	40.38
0276	606002.80	5336497.45	99-JJ-0306	2	5	-3	28	15	5416	73	21	8.2	-0.3	0.5	103	43.37
0277	606768.46	5334815.43	99-JJ-0307	<1	<1	-3	17	13	4550	62	10	9.8	-0.3	0.5	48	40.65
0278	606859.22	5331775.12	99-JJ-0308	<1	<1	-3	13	12	5990	91	12	8.9	-0.3	0.5	72	30.3
0279	606962.00	5326670.00	99-JJ-0309	10	2	-6	34	18	9819	128	21	7.3	1.4	-0.6	128	55.84
0280	607435.35	5323875.50	99-JJ-0311	2	1	-3	12	15	4876	49	12	9.1	-0.3	0.7	57	27.54
0281	609343.00	5321860.00	99-JJ-0312	3	1	-3	19	19	8551	75	11	10.3	-0.3	0.5	79	60.28
0282	610707.00	5320240.00	99-JJ-0313	3	<1	-3	7	11	4484	46	8	12.9	-0.3	0.5	60	30.72
0283	612988.39	5317795.08	99-JJ-0314	3	2	-3	39	26	9071	198	18	12.7	-0.3	0.7	136	52.88
0284	613453.54	5316658.45	99-JJ-0315	2	<1	-3	14	14	3621	62	12	11.7	-0.3	0.5	63	56.32
0285	623276.69	5323809.74	99-JJ-0316	7	<1	-3	25	25	12178	115	18	5.3	0.4	0.7	114	25.09
0286	626055.37	5328893.92	99-JJ-0317	4	2	-3	22	15	5971	126	15	3.3	-0.3	0.5	87	45.44
0287	625309.00	5331340.00	99-JJ-0318	3	1	-3	18	18	8709	104	13	4.7	-0.3	0.5	63	33.92
0289	625514.77	5336146.69	99-JJ-0321	2	12	12	12	17	9754	228	11	4.4	-0.3	0.4	90	17.98
0291	628069.00	5340710.00	99-JJ-0323	2	<1	-3	19	10	2902	83	17	0.9	0.9	-0.3	30	15.46
0297	623790.83	5327940.36	99-JJ-0329	5	1	-3	49	14	3517	34	9	3.7	1.3	0.6	119	37.4
0298	624242.27	5330172.29	99-JJ-0331	2	2	-3	19	18	5722	111	13	5.0	-0.3	0.6	77	44.33
0299	625279.00	5334540.00	99-JJ-0332	2	3	3	14	15	5700	99	11	3.1	-0.3	0.6	91	38.81
0300	627266.74	5337105.47	99-JJ-0333	1	10	9	16	15	6009	118	11	3.5	0.5	0.6	72	29.76
0301	629755.85	5339908.52	99-JJ-0334	3	<1	-3	16	14	5192	50	8	4.0	1.1	0.5	71	56.03
0303	626947.00	5344060.00	99-JJ-0336	2	<1	-5	31	5	1683	40	13	2.4	-0.5	-0.5	56	62.54
0304	630571.00	5347520.00	99-JJ-0337	2	<1	-3	29	12	3854	52	14	6.9	0.7	0.6	54	40.19
0305	630801.38	5347222.43	99-JJ-0338	1	2	-3	49	12	2520	30	14	2.7	0.7	0.9	53	42.99
0306	629858.38	5346972.59	99-JJ-0339	2	<1	-3	31	14	5652	67	10	5.6	-0.3	0.4	31	26.1
0307	629383.23	5347189.93	99-JJ-0341	1	<1	-3	21	11	4395	52	11	5.6	0.5	0.6	34	34.57
0308	629376.59	5347873.00	99-JJ-0342	2	2	-3	38	17	4975	65	15	2.6	0.4	0.5	46	47.31
0309	630298.00	5348790.00	99-JJ-0343	1	<1	-3	45	14	6971	105	14	4.6	0.5	0.8	61	42.06
0310	630555.18	5348344.85	99-JJ-0344	<1	<1	-3	42	8	3950	56	12	2.5	-0.3	0.4	77	57.96
0311	630787.53	5349345.48	99-JJ-0345	<1	<1	-3	60	16	5584	54	14	5.6	0.7	0.6	47	32.85
0312	630994.44	5350026.32	99-JJ-0346	1	<1	-3	37	6	2505	44	14	5.8	0.7	0.6	37	49.27
0313	631405.00	5350610.00	99-JJ-0347	<1	2	-3	56	24	3533	41	24	2.5	0.7	0.9	59	60.98
0314	632721.87	5351620.82	99-JJ-0348	1	2	-3	70	17	3994	54	17	2.9	0.7	0.3	41	36.09
0315	632403.57	5351374.10	99-JJ-0349	5	<1	-6	97	20	11190	53	19	6.3	1.6	-0.6	67	40.78
0316	632709.00	5353950.00	99-JJ-0351	<1	1	-3	19	9	3097	35	10	2.5	-0.3	0.5	33	47.77
0317	632429.11	5353820.84	99-JJ-0352	2	<1	-3	18	9	4713	30	11	7.4	0.7	0.6	25	50.31
0318	633501.63	5354497.02	99-JJ-0353	2	1	-3	62	25	13973	139	12	5.4	1.3	0.8	84	45.26
0319	634513.00	5354730.00	99-JJ-0354	2	<1	-4	17	5	1410	23	6	2.4	-0.4	0.4	62	64.9
0322	634574.00	5349370.00	99-JJ-0357	1	<1	-3	30	17	5149	32	15	2.8	-0.3	0.7	52	59.72
0323	636530.00	5348460.00	99-JJ-0358	1	1	-3	35	17	4429	28	23	3.6	0.8	0.7	28	53.32
0324	635862.39	5347427.86	99-JJ-0359	<1	1	-3	17	4	2318	22	7	3.6	0.4	0.5	19	51.08
0325	636021.37	5347136.16	99-JJ-0361	1	<1	n/a	23	11	2706	40	14	2.6	n/a	n/a	53	65.85
0326	635908.00	5346610.00	99-JJ-0362	1	<1	-7	45	16	4851	89	14	2.6	2.0	1.3	60	64.62
0327	636439.61	5346384.16	99-JJ-0363	1	<1	-3	58	10	2819	72	15	1.8	0.4	0.6	67	56.09

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------>	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units---------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0328	636909.00	5346640.00	99-JJ-0364	1	1	-3	32	16	3773	84	12	3.1	0.7	0.7	61	52.25
0329	636924.10	5346114.94	99-JJ-0365	2	1	-5	36	7	3834	99	11	2.5	2.7	1.5	84	67.99
0330	634831.00	5346580.00	99-JJ-0366	2	1	-3	27	6	2350	27	13	5.5	-0.3	0.5	26	52.27
0331	633823.92	5346591.35	99-JJ-0367	1	<1	-3	27	11	5443	91	15	6.3	0.8	0.6	48	54.77
0332	633613.99	5348401.35	99-JJ-0368	2	1	-4	46	11	3401	29	27	3.9	0.4	0.4	53	58.87
0333	633174.80	5349172.49	99-JJ-0369	2	1	-4	26	15	6129	77	16	5.6	0.5	0.8	74	53.1
0334	634528.00	5349590.00	99-JJ-0371	<1	<1	-3	30	17	5455	34	16	3.3	-0.3	0.5	55	59.67
0335	635423.00	5348500.00	99-JJ-0372	1	1	-3	40	16	4132	37	22	3.5	0.5	0.8	66	58.05
0336	634938.00	5348910.00	99-JJ-0373	1	1	-3	37	15	3388	35	19	2.9	0.5	0.5	55	59.02
0337	634742.97	5347960.32	99-JJ-0374	2	<1	-3	26	12	3688	41	17	9.7	0.4	0.5	30	59.94
0338	632512.00	5345620.00	99-JJ-0375	2	<1	-3	34	12	6047	160	11	4.6	1.6	0.5	73	63.2
0339	632253.11	5341606.04	99-JJ-0376	4	<1	-8	10	6	4133	89	7	2.2	1.8	-0.8	82	77.87
0341	629449.00	5335890.00	99-JJ-0378	2	<1	-3	15	15	4390	52	16	8.4	0.4	0.5	70	43.04
0342	627351.06	5332476.69	99-JJ-0379	3	<1	-3	18	20	7219	179	14	8.4	0.7	0.6	85	32.86
0343	624885.00	5330320.00	99-JJ-0381	2	<1	-3	20	21	7466	150	13	5.6	0.4	0.4	90	46.92
0345	619047.00	5322680.00	99-JJ-0383	30	5	8	27	30	10512	190	23	9.3	0.5	0.6	128	50.06
0346	617388.49	5319968.90	99-JJ-0384	3	<1	-3	18	17	6411	125	15	16.0	0.3	0.6	79	24.28
0347	616842.95	5317248.36	99-JJ-0385	2	1	-3	43	24	7809	123	15	9.0	1.6	0.5	108	56.5
0348	612860.00	5315550.00	99-JJ-0386	2	<1	-3	26	17	6262	107	19	17.3	0.9	0.9	84	36.15
0349	612732.82	5316139.24	99-JJ-0387	3	1	-3	28	19	4720	128	21	12.6	0.8	0.9	89	48.34
0350	608463.00	5317460.00	99-JJ-0388	2	<1	-3	22	21	8585	116	10	9.7	0.6	0.6	84	44.91
0351	607341.00	5317540.00	99-JJ-0389	1	1	-3	14	15	4663	52	11	6.3	0.3	0.4	47	47.45
0352	606659.00	5317330.00	99-JJ-0391	2	<1	-3	17	16	5831	67	10	6.8	0.5	0.6	78	40.64
0353	605810.00	5317740.00	99-JJ-0392	3	1	-3	17	17	7921	128	9	12.9	-0.3	0.4	69	47.72
0354	604779.00	5319530.00	99-JJ-0393	2	<1	-3	20	20	6590	114	11	10.4	0.3	0.5	123	54.82
0355	605173.00	5320710.00	99-JJ-0394	2	1	-3	8	12	3692	35	9	11.1	0.4	0.4	50	32.14
0356	605169.99	5322169.38	99-JJ-0395	<1	2	-3	16	12	2261	35	15	9.5	0.5	0.4	72	54.67
0357	604967.76	5323308.34	99-JJ-0396	2	1	31	9	16	6250	59	8	10.8	0.6	0.5	45	27.79
0358	604536.00	5324010.00	99-JJ-0397	4	<1	-4	30	18	12976	115	14	8.5	4.0	0.4	80	62.44
0359	604399.00	5324290.00	99-JJ-0398	6	2	-3	37	15	10095	144	18	7.3	1.3	0.7	89	57.75
0360	604627.00	5324910.00	99-JJ-0399	18	<1	-3	26	57	5929	47	36	11.8	0.4	0.8	68	35.58
0361	603065.64	5325479.69	99-JJ-0401	41	5	4	53	24	10730	115	19	9.7	1.2	0.7	173	42.6
0362	603704.10	5327769.56	99-JJ-0402	3	1	-5	33	14	13572	312	12	9.0	5.8	-0.5	91	53.84
0363	602979.96	5327390.06	99-JJ-0403	2	<1	-3	24	10	2514	37	13	11.1	0.4	0.5	55	55.2
0364	603219.16	5328574.77	99-JJ-0404	5	<1	3	21	19	11010	172	14	30.1	0.6	0.5	117	44.3
0365	605279.00	5329020.00	99-JJ-0405	2	4	5	27	10	2187	36	12	6.3	-0.3	0.5	84	64.99
0366	605901.00	5329370.00	99-JJ-0406	1	<1	-3	21	7	1978	34	11	2.2	-0.3	0.3	59	54.82
0367	605249.00	5330880.00	99-JJ-0407	2	2	-3	19	16	8936	208	15	11.4	-0.3	0.4	88	41.69
0368	605761.76	5331697.79	99-JJ-0408	1	<1	-3	29	14	4035	49	20	3.3	-0.3	0.4	104	61.34
0369	604096.00	5331870.00	99-JJ-0409	2	<1	-3	31	17	5255	55	24	6.5	1.6	1.8	102	43.14
0370	604233.00	5332790.00	99-JJ-0411	3	1	-3	33	16	4667	45	29	8.4	0.5	0.6	78	47.3
0371	602841.09	5333819.95	99-JJ-0412	<1	<1	-3	25	17	4588	54	23	6.5	-0.3	0.7	97	42.42
0372	602333.41	5334676.69	99-JJ-0413	2	<1	-3	21	14	3737	43	22	9.6	-0.3	0.4	102	41.81
0373	603476.59	5335573.89	99-JJ-0414	2	<1	-3	41	16	5180	62	24	3.4	-0.3	0.4	122	50.82
0374	603925.95	5335269.74	99-JJ-0415	<1	1	3	49	9	2168	25	20	3.1	-0.3	0.5	60	43.96
0375	603147.03	5336724.60	99-JJ-0416	1	<1	-3	29	13	4249	40	23	7.9	0.3	0.6	99	52.98
0376	602494.30	5337395.69	99-JJ-0417	<1	<1	-3	15	17	6616	66	13	7.1	-0.3	0.6	70	28.75
0377	603587.26	5337862.12	99-JJ-0418	1	1	-3	19	10	5216	61	14	7.0	-0.3	0.5	67	32.99
0378	603406.90	5337950.70	99-JJ-0419	2	1	-5	24	14	4791	53	17	5.5	-0.5	-0.5	90	48.15
0379	604353.00	5338707.75	99-JJ-0421	2	1	-3	24	7	2711	39	14	8.4	-0.3	0.6	56	44.71
0380	603717.00	5338980.00	99-JJ-0422	1	1	-3	20	6	3771	45	12	3.4	-0.3	0.4	61	51.02
0381	602406.15	5339030.62	99-JJ-0423	2	<1	-3	23	8	2881	37	14	6.7	-0.3	-0.3	69	49.28
0382	600256.08	5336731.12	99-JJ-0424	2	2	-3	36	14	5685	55	19	10.8	2.4	0.4	98	40.54
0384	599469.38	5336123.92	99-JJ-0426	2	1	-3	20	10	4583	45	16	6.9	-0.3	0.5	74	39.48
0385	601767.51	5335453.82	99-JJ-0427	<1	<1	-3	23	12	4108	43	16	8.5	-0.3	0.5	83	35.85
0386	602273.24	5335976.92	99-JJ-0428	1	<1	-3	20	17	6861	70	14	9.9	0.3	0.4	94	29.99
0387	601317.15	5333396.23	99-JJ-0429	1	2	-3	33	18	6528	61	22	6.4	1.2	0.5	122	47.51
0388	598531.00	5333600.00	99-JJ-0431	<1	1	-3	21	10	3248	46	15	4.8	1.3	0.5	62	46.9
0389	598569.54	5332715.65	99-JJ-0432	<1	2	-3	15	9	2563	35	10	6.9	-0.3	0.4	51	44.4
0390	598869.30	5332167.79	99-JJ-0433	1	<1	-3	10	7	4166	49	6	6.2	0.7	0.5	42	20.15
0391	599981.72	5331965.45	99-JJ-0434	<1	<1	-3	22	11	5295	57	13	4.4	-0.3	0.4	81	51.24

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------>	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------>	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0392	600715.00	5332200.00	99-JJ-0435	2	1	-3	29	14	4434	50	21	9.8	-0.3	0.7	121	48.97
0393	601572.26	5332527.94	99-JJ-0436	2	1	-3	21	15	8421	141	14	13.2	0.5	0.5	121	29.36
0394	601063.03	5331353.07	99-JJ-0437	3	1	-3	21	9	2840	47	12	4.7	-0.3	0.4	81	55.14
0395	600882.00	5331640.00	99-JJ-0438	2	<1	-3	19	5	2756	36	10	5.8	-0.3	0.4	86	58.24
0396	599881.00	5330020.00	99-JJ-0439	2	2	-3	29	11	3402	40	20	6.2	-0.3	0.5	104	53.34
0397	600715.00	5329410.00	99-JJ-0441	1	<1	-3	21	15	6608	84	14	4.8	-0.3	0.5	96	41.86
0398	599699.00	5327710.00	99-JJ-0442	1	2	-3	21	17	6039	123	14	7.5	-0.3	0.6	100	52.69
0399	600791.00	5328080.00	99-JJ-0443	2	2	-3	19	6	2972	33	14	9.8	0.3	0.5	82	42.74
0400	601517.46	5327346.58	99-JJ-0444	<1	1	-3	15	11	2494	24	16	4.7	-0.3	0.6	82	44.9
0401	605883.95	5325157.44	99-JJ-0445	26	2	-3	45	21	3820	38	37	8.8	0.4	0.7	115	35.32
0402	610025.00	5321130.00	99-JJ-0446	2	2	-3	13	11	4787	50	13	18.2	-0.3	0.5	65	36.3
0403	615221.06	5316524.26	99-JJ-0447	4	1	-3	43	20	3434	18	35	19.2	4.6	1.0	146	59.78
0404	621928.00	5320040.00	99-JJ-0448	2	<1	-3	14	13	5192	45	17	7.2	-0.3	0.4	104	42.86
0405	627189.00	5322210.00	99-JJ-0449	2	<1	-7	34	29	11235	100	15	15.5	0.9	-0.7	96	60.6
0406	632102.00	5323350.00	99-JJ-0451	7	2	-3	43	27	7283	185	24	6.1	0.6	0.6	158	44.94
0407	633606.61	5329448.71	99-JJ-0452	2	<1	-3	14	11	4715	86	12	4.7	-0.3	0.3	58	52.08
0408	633937.00	5334920.00	99-JJ-0453	1	1	-3	18	19	12088	126	13	5.8	0.6	0.5	83	46.56
0409	636014.00	5338960.00	99-JJ-0454	3	1	-4	87	19	4135	60	33	3.6	1.7	0.7	147	64.41
0410	637060.00	5343130.00	99-JJ-0455	5	1	-3	39	26	14135	202	19	4.8	1.1	0.8	104	29.5
0411	638455.35	5345721.45	99 JJ-0456	2	1	-3	109	18	6717	44	15	3.3	1.2	0.6	72	43.54
0412	638364.00	5346320.00	99-JJ-0457	4	<1	-3	38	36	19283	607	25	6.1	0.5	0.7	132	22.9
0413	637788.00	5347050.00	99-JJ-0458	2	1	-3	20	22	9062	121	16	3.8	0.4	0.6	79	26.63
0415	638380.00	5347970.00	99-JJ-0461	1	<1	-3	47	13	3045	34	14	3.5	-0.3	0.5	77	54.98
0416	638827.07	5348816.76	99-JJ-0462	2	1	-3	35	24	8288	451	14	5.6	0.3	0.8	103	57.13
0417	639985.88	5348548.25	99-JJ-0463	3	1	-3	25	19	10390	233	11	9.9	-0.3	0.5	88	59.14
0418	639653.00	5347680.00	99-JJ-0464	4	2	-3	26	34	27395	841	22	14.9	-0.3	0.7	120	29.02
0419	639790.00	5347120.00	99-JJ-0465	1	2	-3	47	16	6674	166	20	7.8	0.4	0.6	176	39.33
0420	640290.00	5347140.00	99-JJ-0466	1	<1	-3	80	17	16956	245	23	15.1	-0.3	0.5	186	53.01
0421	640636.05	5346344.36	99-JJ-0467	6	<1	-3	167	11	58209	166	81	6.9	1.1	0.9	476	56.81
0422	639737.29	5346011.48	99-JJ-0468	<1	2	-3	167	30	16763	112	32	4.6	1.1	0.8	77	47.11
0423	640469.03	5345453.44	99-JJ-0469	2	2	-3	65	17	7237	118	19	4.0	0.6	0.7	66	53.83
0424	641154.00	5345560.00	99-JJ-0471	1	<1	-3	35	8	3996	52	21	4.2	-0.3	0.5	116	46.13
0425	642231.00	5346360.00	99-JJ-0472	1	1	-10	31	18	6965	59	11	2.5	1.5	-1.0	73	64.45
0426	642746.00	5347710.00	99-JJ-0473	3	<1	-3	38	33	12734	328	20	6.5	0.4	0.6	88	52.7
0427	641838.78	5348194.97	99-JJ-0474	1	1	-3	26	38	33071	825	19	6.7	-0.3	0.6	114	20.65
0428	642716.00	5348940.00	99-JJ-0475	2	<1	-3	41	23	6806	110	25	3.5	0.3	0.3	110	57.54
0429	644096.00	5349170.00	99-JJ-0476	2	1	-3	41	18	3315	56	15	5.6	0.6	0.6	104	55.57
0430	644915.00	5350250.00	99-JJ-0477	2	3	-3	97	25	17862	211	23	8.2	0.8	0.8	135	51.03
0431	644687.00	5351020.00	99-JJ-0478	2	2	-3	40	25	6908	240	14	7.8	-0.3	0.9	90	58.55
0432	645870.00	5351050.00	99-JJ-0479	3	2	-7	59	27	9387	115	27	5.7	1.3	-0.7	118	53.54
0433	647053.00	5350900.00	99-JJ-0481	2	<1	-3	29	12	3942	82	15	2.6	-0.3	0.6	69	58.03
0434	647220.00	5350590.00	99-JJ-0482	3	1	-3	79	23	8824	509	21	2.9	0.9	0.8	165	65.08
0435	646719.00	5350090.00	99-JJ-0483	1	2	-6	27	5	3015	40	9	2.2	2.0	-0.6	88	73.11
0436	646401.00	5349790.00	99-JJ-0484	2	1	-3	16	8	5087	140	8	3.7	0.4	0.3	69	66.85
0437	646037.00	5349940.00	99-JJ-0485	2	1	-3	36	<4	3659	26	16	2.7	0.5	0.5	83	55.03
0438	643665.95	5349169.57	99-JJ-0486	<1	1	-3	22	15	5508	97	14	8.1	-0.3	0.6	74	38.28
0439	643592.68	5348504.17	99-JJ-0487	2	<1	9	19	11	2807	17	12	5.3	-0.3	0.7	46	49.4
0440	643565.00	5348000.00	99-JJ-0488	2	3	6	26	17	7755	112	13	5.3	0.6	0.7	54	36.72
0441	643004.00	5347320.00	99-JJ-0489	2	<1	-3	20	15	11041	102	12	8.9	-0.3	0.5	86	58.7
0442	642640.00	5346090.00	99-JJ-0491	3	1	-3	40	38	16037	538	21	5.2	0.8	0.9	219	28.52
0443	642928.00	5345120.00	99-JJ-0492	2	<1	-3	27	30	15759	235	15	4.3	0.6	0.6	193	42.02
0444	643080.00	5344630.00	99-JJ-0493	2	<1	-3	21	19	4837	59	17	3.9	0.4	0.5	87	55.32
0446	643656.00	5343860.00	99-JJ-0495	2	<1	-3	40	29	11777	158	18	3.0	0.6	0.7	134	55.9
0447	642125.00	5340860.00	99-JJ-0496	5	3	-3	54	47	35609	396	22	4.4	0.6	0.8	165	41.21
0448	637220.20	5336939.81	99-JJ-0497	2	3	-3	36	39	11772	141	17	3.7	0.4	0.7	105	33.36
0449	634558.00	5333820.00	99-JJ-0498	1	<1	-3	19	18	6717	141	10	3.1	-0.3	0.3	79	45.82
0450	633896.82	5334072.18	99-JJ-0499	3	<1	-3	21	23	12229	226	12	5.9	0.5	0.4	110	54.52
0451	631526.31	5332528.50	99-JJ-0501	2	<1	n/a	10	18	11826	134	9	2.5	n/a	n/a	89	14.63
0452	631352.38	5331866.84	99-JJ-0502	2	2	-3	21	22	4268	64	14	4.4	0.4	0.6	82	50.86
0453	631397.24	5331614.41	99-JJ-0503	2	<1	-5	23	13	3193	39	16	6.2	-0.5	-0.5	63	66.06
0454	628342.00	5322740.00	99-JJ-0504	9	2	-3	48	35	9431	101	21	9.1	0.6	0.6	114	54.37

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------>	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------>	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0455	627751.70	5322094.86	99-JJ-0505	2	2	-3	18	14	5783	54	13	7.1	-0.3	0.4	100	47.47
0456	627219.00	5321790.00	99-JJ-0506	2	<1	-3	17	17	4829	60	12	5.6	0.4	0.4	94	44.81
0457	627301.00	5321240.00	99-JJ-0507	4	2	-3	24	56	8813	115	38	36.8	0.4	0.6	119	39.67
0458	622504.00	5318570.00	99-JJ-0508	1	1	-3	7	12	4209	39	8	10.5	-0.3	0.5	44	32.48
0459	621401.26	5318336.71	99-JJ-0509	2	<1	-3	13	15	4713	38	14	9.4	-0.3	0.4	81	37.47
0460	612739.00	5314890.00	99-JJ-0511	2	2	5	41	27	9320	103	23	6.7	0.6	0.4	208	38.14
0470	606371.00	5330370.00	99-JJ-0522	2	1	-3	18	12	3722	43	15	7.8	0.4	0.5	64	47.3
0472	604228.05	5327278.30	99-JJ-0524	2	1	-3	16	11	5044	51	12	13.8	0.3	0.7	81	42.26
0473	603932.56	5327516.60	99-JJ-0525	2	<1	-3	16	11	4212	41	11	4.1	-0.3	0.4	81	62.09
0474	601376.32	5325702.62	99-JJ-0526	3	2	-3	46	15	4933	56	13	11.1	0.5	0.5	102	43.4
0475	600741.26	5325599.04	99-JJ-0527	2	1	-3	29	14	3655	38	14	4.6	-0.3	-0.3	100	65.9
0476	599852.41	5325730.28	99-JJ-0528	5	2	-3	24	15	5679	139	21	12.8	0.6	0.7	111	50.97
0477	598895.00	5325800.00	99-JJ-0529	3	1	-3	39	13	3991	40	21	6.6	0.3	0.5	117	54.96
0478	598777.39	5324461.51	99-JJ-0531	16	2	6	29	14	6147	57	20	7.2	1.1	0.5	87	48.94
0479	597713.00	5324600.00	99-JJ-0532	26	1	-3	52	21	16244	125	40	5.8	1.0	1.9	186	42.71
0480	597378.66	5325155.65	99-JJ-0533	1	1	-3	15	15	3355	36	13	14.4	0.4	0.5	76	39.92
0481	595923.00	5324590.00	99-JJ-0534	2	8	-3	52	23	7819	137	14	5.5	-0.3	0.6	120	46.02
0482	595409.08	5324585.73	99-JJ-0535	5	<1	3	39	18	5382	88	18	7.7	0.4	0.6	107	38.73
0483	594483.00	5324270.00	99-JJ-0536	16	<1	-3	44	18	5428	71	26	6.1	0.6	0.5	135	43.8
0484	593160.35	5324337.71	99-JJ-0537	7	3	-3	59	17	5463	94	27	7.8	-0.3	0.5	138	52.01
0485	590821.11	5322628.69	99-JJ-0538	7	1	-3	53	13	12899	222	16	8.8	-0.3	0.6	180	63.64
0486	592087.00	5322540.00	99-JJ-0539	39	1	4	30	52	12345	222	36	18.5	0.4	0.8	111	44.3
0487	591895.55	5322119.07	99-JJ-0541	3	1	-3	32	13	3904	68	26	6.6	-0.3	0.5	120	55.98
0488	591132.00	5321680.00	99-JJ-0542	2	<1	-3	33	16	8063	117	19	12.9	-0.3	0.6	246	37.64
0489	590014.57	5321735.84	99-JJ-0543	2	3	-3	45	13	7205	107	16	22.0	0.6	0.9	191	41.14
0490	589860.57	5321547.84	99-JJ-0544	3	3	-3	53	12	5309	65	16	11.3	1.0	0.6	157	48.18
0491	589599.07	5321326.64	99-JJ-0545	3	3	-3	140	15	6106	148	18	11.0	0.9	0.6	192	47.81
0492	588691.00	5320680.00	99-JJ-0546	2	2	-3	44	13	11969	283	11	6.9	0.5	0.6	145	58.6
0493	591905.00	5321180.00	99-JJ-0547	3	4	-3	34	18	10136	214	16	5.5	-0.3	0.5	159	43.36
0494	591363.99	5320838.88	99-JJ-0548	3	1	-3	64	17	8505	305	14	6.9	0.4	0.5	220	54.94
0495	591968.31	5322125.00	99-JJ-0549	2	2	-3	30	14	3587	53	23	7.0	-0.3	0.5	110	54.49
0496	592694.00	5322030.00	99-JJ-0551	2	2	-3	19	11	4490	91	8	4.8	-0.3	0.4	50	40.15
0497	593952.00	5322570.00	99-JJ-0552	43	3	-3	42	44	9821	129	39	7.3	0.6	0.6	147	54.66
0498	594255.00	5322270.00	99-JJ-0553	9	<1	-3	27	25	4389	233	20	5.9	-0.3	0.9	111	52.57
0499	595123.77	5321075.67	99-JJ-0554	5	<1	-3	35	19	7685	219	19	7.0	1.3	0.8	108	31.23
0500	596501.11	5321469.97	99-JJ-0555	6	<1	-3	54	32	10774	130	26	8.9	0.5	0.6	111	33.23
0502	598607.00	5322210.00	99-JJ-0557	10	<1	-3	38	14	6914	431	17	11.1	-0.3	0.5	191	66.88
0503	599250.98	5322284.68	99-JJ-0558	57	<1	-3	32	19	3663	75	40	6.0	-0.3	0.6	100	65.25
0505	604039.00	5318800.00	99-JJ-0561	2	2	-3	21	19	23430	103	9	13.7	-0.3	0.5	101	54.61
0506	618926.00	5315890.00	99-JJ-0562	<1	<1	-3	11	12	4519	44	9	9.6	-0.3	0.5	49	34.65
0507	621484.04	5316983.84	99-JJ-0563	1	<1	-3	12	10	3505	39	7	8.9	0.3	0.4	40	41.06
0508	625527.63	5317324.20	99-JJ-0564	3	<1	-3	15	24	11307	111	14	12.1	0.3	0.5	172	43.56
0509	627614.00	5320690.00	99-JJ-0565	2	<1	-3	54	29	16916	273	18	15.6	-0.3	0.5	97	62.13
0510	631010.00	5325700.00	99-JJ-0566	2	<1	-3	30	19	22525	490	11	13.4	0.3	0.5	104	62.26
0511	633480.22	5329923.93	99-JJ-0567	<1	<1	-3	19	13	3907	66	10	3.8	-0.3	0.4	69	45.83
0512	636700.28	5334441.68	99-JJ-0568	<1	<1	-3	19	19	7583	112	11	4.5	-0.3	0.4	88	48.43
0514	641649.65	5337862.59	99-JJ-0571	3	1	-8	54	7	4948	339	9	1.2	2.1	-0.8	67	19.82
0515	641473.00	5338930.00	99-JJ-0572	1	<1	-3	55	26	8523	128	18	3.5	0.7	0.6	79	36.48
0516	642272.10	5339451.31	99-JJ-0573	2	<1	-3	39	29	14266	138	20	4.9	0.4	0.6	83	38.67
0517	641789.97	5340192.48	99-JJ-0574	2	3	-3	44	42	33795	594	23	5.8	0.6	0.8	148	23.81
0518	642822.00	5341500.00	99-JJ-0575	2	<1	6	58	26	8575	149	19	4.5	0.9	0.6	90	49.21
0519	643323.00	5342600.00	99-JJ-0576	1	<1	-3	39	43	16705	298	26	6.2	0.3	0.7	103	34.5
0520	642504.00	5342750.00	99-JJ-0577	3	1	-3	48	24	9102	154	19	5.3	0.7	0.6	101	47.4
0521	643126.00	5343180.00	99-JJ-0578	4	2	4	58	26	12653	315	22	12.5	0.7	0.9	103	43.54
0522	643956.44	5343102.55	99-JJ-0579	2	1	-3	48	30	12426	235	19	7.6	0.3	0.7	98	41.02
0523	645089.23	5343755.83	99-JJ-0581	4	1	10	65	32	25018	304	27	5.4	0.6	0.8	97	52.24
0524	646931.00	5344830.00	99-JJ-0582	3	1	-3	50	32	16377	386	23	5.6	-0.3	0.7	112	28.22
0525	648247.25	5344744.69	99-JJ-0583	1	2	-3	34	29	12806	231	21	4.0	-0.3	0.6	90	21.52
0526	647219.88	5344141.90	99-JJ-0584	2	2	-3	28	25	11848	264	17	4.5	-0.3	0.5	71	17.82
0527	648013.29	5342680.07	99-JJ-0585	2	1	-3	32	16	5942	84	16	3.9	-0.3	0.6	58	49.16
0528	648630.00	5342410.00	99-JJ-0586	2	<1	-3	49	26	7174	96	29	4.4	-0.3	0.5	67	53.74

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units--------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0529	648360.53	5341424.63	99-JJ-0587	<1	<1	-3	25	19	5128	89	19	2.8	-0.3	0.5	64	41.99
0530	648192.07	5341044.00	99-JJ-0588	2	2	-3	31	20	6333	87	23	6.3	0.3	0.7	76	55.31
0531	648498.31	5340448.94	99-JJ-0589	1	3	-3	32	38	19308	215	31	7.3	-0.3	1.0	125	37.89
0532	648085.26	5339967.55	99-JJ-0591	<1	1	-3	37	14	4551	38	14	9.4	-0.3	0.5	54	44.26
0533	647455.38	5340899.60	99-JJ-0592	1	2	-3	26	11	3239	59	16	4.7	-0.3	0.4	61	55.47
0535	647765.00	5341940.00	99-JJ-0594	1	<1	-3	31	19	6529	158	26	5.9	-0.3	0.5	73	52.08
0536	646789.90	5342097.95	99-JJ-0595	2	<1	-3	58	22	8419	57	17	8.1	0.6	-0.3	76	26.65
0537	646416.00	5343130.00	99-JJ-0596	1	1	-3	38	30	14709	309	22	4.5	0.7	0.5	103	24.39
0538	645318.47	5342975.67	99-JJ-0597	1	<1	-3	44	35	16325	288	20	4.4	0.4	0.7	113	33.52
0539	644627.00	5342500.00	99-JJ-0598	2	<1	-6	61	22	7721	108	26	4.8	0.9	-0.6	68	47.15
0540	645996.23	5341705.13	99-JJ-0599	2	1	-3	55	16	4225	52	24	3.3	1.0	0.5	94	58.65
0541	645082.00	5340560.00	99-JJ-0601	4	2	-3	42	25	14359	225	23	12.9	0.7	0.7	103	30.91
0542	645567.00	5340840.00	99-JJ-0602	3	3	-3	63	31	27775	767	18	7.4	0.9	0.8	125	52.86
0543	645405.99	5341185.94	99-JJ-0603	2	<1	-3	55	19	6375	113	20	4.3	-0.3	0.5	89	50.42
0544	646083.90	5341184.14	99-JJ-0604	1	<1	-3	36	9	3284	47	18	2.2	-0.3	0.4	48	45.29
0545	643986.71	5341642.50	99-JJ-0605	2	2	-3	75	14	3134	53	28	3.1	0.5	0.8	75	58.41
0546	645053.55	5340559.56	99-JJ-0606	2	1	-3	35	23	9117	190	23	7.3	-0.3	0.6	89	37.58
0547	643171.00	5340430.00	99-JJ-0607	2	3	-3	73	38	9917	217	26	4.0	0.5	0.8	133	47.9
0548	642640.00	5340710.00	99-JJ-0608	2	<1	-3	58	20	11098	150	26	4.0	0.5	0.6	89	54.68
0549	643199.45	5340909.74	99-JJ-0609	2	<1	-3	83	10	3278	46	31	4.0	1.3	0.7	75	62.3
0550	640660.18	5337611.96	99-JJ-0611	1	2	-3	48	8	3322	50	23	3.5	-0.3	0.7	71	54.52
0551	637030.00	5335370.00	99-JJ-0612	<1	<1	-3	31	10	3275	75	21	3.7	-0.3	0.5	51	50.7
0552	636190.75	5333799.66	99-JJ-0613	2	<1	-3	17	8	3270	23	19	8.8	-0.3	0.4	39	50.09
0553	636334.03	5333099.73	99-JJ-0614	1	<1	-3	18	11	3975	38	16	5.1	-0.3	0.5	34	54.28
0554	636029.00	5333290.00	99-JJ-0615	1	<1	-3	14	8	3241	32	17	8.2	-0.3	0.6	32	55.26
0555	635514.00	5331960.00	99-JJ-0616	2	1	-3	25	17	7692	263	11	4.8	-0.3	0.6	76	45.18
0556	635563.71	5331224.66	99-JJ-0617	2	2	-3	30	18	9364	86	15	4.4	-0.3	0.5	80	53.78
0557	634710.00	5330350.00	99-JJ-0618	<1	<1	-3	17	12	4422	68	13	4.2	-0.3	0.5	53	38.67
0558	633891.00	5328670.00	99-JJ-0619	1	2	-3	25	26	13704	238	20	4.7	-0.3	0.4	82	25.25
0559	632650.69	5327202.12	99-JJ-0621	2	<1	-3	18	10	5390	156	10	11.0	-0.3	0.6	54	51.87
0560	632208.00	5326820.00	99-JJ-0622	2	<1	-3	31	15	6127	161	12	5.7	1.0	0.8	107	49
0561	630374.00	5325120.00	99-JJ-0623	2	<1	-3	17	13	5010	74	15	8.1	-0.3	0.7	72	41.28
0562	628008.52	5323568.04	99-JJ-0624	7	<1	-3	26	14	3644	47	36	13.7	-0.3	0.5	93	41.83
0563	626537.00	5321000.00	99-JJ-0625	3	2	-3	23	9	3970	37	15	13.3	-0.3	0.4	65	44.87
0564	626706.24	5321428.51	99-JJ-0626	2	<1	-3	16	6	2732	27	13	11.1	-0.3	0.4	50	51.02
0565	623994.60	5319203.46	99-JJ-0627	1	3	-3	24	17	6345	63	21	8.0	-0.3	0.7	69	25.04
0566	621494.07	5317065.10	99-JJ-0628	2	<1	-3	15	8	4674	35	15	12.7	-0.3	0.5	57	39.88
0567	621189.11	5317062.35	99-JJ-0629	1	<1	-3	15	10	4342	41	10	9.9	-0.3	0.4	56	37.52
0568	610237.00	5321860.00	99-JJ-0631	2	2	-3	13	5	2717	33	9	7.4	-0.3	0.4	35	40.14
0569	611200.23	5322820.75	99-JJ-0632	1	2	-3	17	5	3415	48	10	4.1	-0.3	0.4	62	49.88
0570	611556.00	5323830.00	99-JJ-0633	3	<1	-3	11	5	3532	33	9	20.6	-0.3	0.3	61	49.69
0571	611238.00	5327620.00	99-JJ-0634	3	2	-3	26	12	4184	56	30	4.3	-0.3	0.6	99	48.86
0572	610671.15	5327514.27	99-JJ-0635	3	1	-3	23	11	4526	46	25	4.8	-0.3	0.3	64	44.91
0573	611617.00	5331020.00	99-JJ-0636	3	<1	-3	34	8	3841	47	17	2.8	-0.3	0.5	67	39.49
0574	613346.03	5331468.62	99-JJ-0637	2	<1	-3	20	<4	1885	37	10	5.2	-0.3	0.4	44	60.34
0575	610587.29	5333101.38	99-JJ-0638	6	<1	-3	99	18	5713	20	27	7.3	1.6	1.0	922	49.16
0576	610677.00	5333760.00	99-JJ-0639	1	2	-3	22	14	4957	71	14	7.0	-0.3	0.5	82	31.66
0577	610811.29	5336042.67	99-JJ-0641	1	2	-3	48	6	3331	33	13	9.0	-0.3	0.5	78	40.58
0578	610783.00	5337040.00	99-JJ-0642	2	<1	-3	40	7	4471	70	17	11.1	-0.3	0.5	104	44.36
0579	608374.76	5332952.96	99-JJ-0643	<1	<1	-4	25	7	2009	19	10	10.9	0.6	0.5	26	60.29
0580	609164.79	5332068.29	99-JJ-0644	1	<1	-3	24	9	3764	53	18	7.9	-0.3	0.4	94	36.23
0581	610161.00	5331060.00	99-JJ-0645	1	2	-3	21	6	2739	26	15	7.9	-0.3	0.5	67	41.8
0582	609570.00	5330460.00	99-JJ-0646	2	2	-3	34	21	11133	130	26	7.8	-0.3	3.8	87	42.18
0583	609306.53	5328338.28	99-JJ-0647	2	3	12	11	8	5219	73	14	14.6	0.6	5.5	68	25.91
0584	608436.86	5327015.27	99-JJ-0648	12	<1	-3	19	4	2030	35	16	6.5	1.7	5.9	82	48.36
0585	606990.74	5327139.72	99-JJ-0649	3	1	-3	30	10	4398	53	16	4.0	-0.3	1.3	79	39.75
0586	605019.25	5326405.59	99-JJ-0651	4	2	-3	21	<4	2703	32	18	12.0	-0.3	0.4	65	55.27
0587	604494.58	5325134.20	99-JJ-0652	44	1	-3	45	12	4327	74	35	6.7	-0.3	0.6	751	49.51
0588	602989.00	5324800.00	99-JJ-0653	120	3	-3	60	29	16067	260	32	8.1	0.5	0.7	222	54.08
0589	602246.67	5323248.58	99-JJ-0654	3	<1	-3	56	7	4246	50	16	6.9	-0.3	0.4	97	35.01
0590	600415.24	5322545.98	99-JJ-0655	11	<1	-3	53	34	6535	106	36	7.8	-0.3	0.4	96	40.47

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------>	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units-------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0591	599432.24	5322442.48	99-JJ-0656	59	4	-3	28	31	3015	40	69	10.6	-0.3	0.7	81	54.29
0592	598941.00	5322380.00	99-JJ-0657	14	<1	-3	30	13	6682	360	17	9.1	-0.3	-0.3	120	65.48
0593	597685.05	5322612.26	99-JJ-0658	13	1	9	22	40	6616	93	37	8.5	-0.3	0.4	68	40.7
0594	597699.18	5323085.16	99-JJ-0659	9	<1	-3	21	16	4430	51	17	11.0	-0.3	0.7	36	44.9
0595	598543.42	5323507.50	99-JJ-0661	17	<1	-3	43	20	4579	228	21	5.1	1.1	1.3	162	57.22
0596	598046.00	5324010.00	99-JJ-0662	9	5	4	44	17	6305	56	33	11.0	1.0	1.4	86	45.06
0598	596782.18	5323251.75	99-JJ-0664	17	7	5	47	15	3923	65	20	8.8	1.1	0.7	38	33.03
0599	596621.00	5322690.00	99-JJ-0665	23	1	-3	30	20	6181	85	24	6.0	0.3	0.6	83	41.78
0600	594544.00	5323260.00	99-JJ-0666	15	4	4	24	14	4862	60	19	6.7	-0.3	0.7	98	52.65
0601	595188.97	5321071.28	99-JJ-0667	4	1	-3	26	16	4690	93	18	7.6	-0.3	0.6	101	34.49
0602	593831.00	5321010.00	99-JJ-0668	3	1	-3	33	14	4766	78	17	14.6	-0.3	0.5	97	45.51
0604	595116.57	5319352.90	99-JJ-0671	2	<1	-3	36	19	8601	111	17	9.5	0.6	0.5	73	28.34
0605	596217.25	5318950.73	99-JJ-0672	3	2	-3	81	19	7116	54	17	3.4	3.6	1.3	152	44.74
0606	597076.00	5319390.00	99-JJ-0673	2	1	-3	51	17	5961	53	17	6.4	1.5	0.6	127	24.3
0607	598986.00	5318900.00	99-JJ-0674	5	5	-6	74	25	6983	90	35	5.8	0.9	-0.6	212	62.84
0608	598863.23	5319226.01	99-JJ-0675	2	2	-3	49	12	5082	50	19	4.1	0.7	0.8	99	49.33
0609	599414.64	5319773.95	99-JJ-0676	2	2	-3	20	10	3367	51	12	6.2	-0.3	0.3	147	62.95
0610	598563.51	5320311.48	99-JJ-0677	2	2	-7	69	19	3793	44	38	3.2	-0.7	-0.7	177	66.78
0611	599088.41	5320653.72	99-JJ-0678	2	3	-3	80	23	5558	58	31	4.3	1.9	0.9	170	44.73
0612	599469.93	5320933.52	99-JJ-0679	2	<1	-6	58	22	5394	106	23	5.3	1.3	-0.6	161	60.5
0613	600409.44	5320420.48	99-JJ-0681	2	<1	-3	13	14	2867	27	14	11.9	-0.3	0.4	78	50.02
0615	601999.38	5321295.05	99-JJ-0683	2	2	-3	23	16	4272	97	10	6.3	-0.3	0.3	130	53.16
0616	602610.00	5320870.00	99-JJ-0684	1	<1	-3	10	11	4313	40	10	7.2	-0.3	0.6	48	31.4
0618	604157.00	5319120.00	99-JJ-0686	2	1	-3	17	18	7271	256	11	5.6	-0.3	0.3	142	40.07
0619	605783.44	5319293.26	99-JJ-0687	3	<1	-3	23	13	2977	35	15	4.1	-0.3	0.4	110	48.5
0620	607201.86	5318519.05	99-JJ-0688	1	2	-3	34	20	6321	182	15	7.5	0.9	0.6	132	36.56
0621	610030.97	5316947.73	99-JJ-0689	6	2	-3	45	24	13143	172	15	9.8	2.1	0.8	143	50.4
0622	611724.63	5316661.35	99-JJ-0691	3	2	-3	24	17	5389	81	23	14.0	1.3	0.5	127	58.85
0623	610253.18	5317825.67	99-JJ-0692	2	1	-3	12	13	4263	42	13	14.8	-0.3	0.5	74	33.68
0624	608600.00	5320010.00	99-JJ-0693	2	<1	-3	8	13	5136	48	9	17.4	-0.3	0.5	61	26.87
0625	608357.00	5321880.00	99-JJ-0694	1	<1	-3	15	10	1846	22	10	11.7	0.3	0.4	30	65.34
0626	605542.64	5324371.76	99-JJ-0695	2	1	-3	15	11	3429	48	10	4.8	-0.3	0.5	62	39.23
0627	605829.35	5326822.79	99-JJ-0696	3	3	-3	16	10	2977	49	15	7.6	-0.3	0.6	44	60.24
0628	605703.00	5327700.00	99-JJ-0697	3	2	-3	38	18	8387	187	13	5.1	-0.3	0.5	100	53.18
0629	605461.00	5328460.00	99-JJ-0698	<1	1	-3	17	17	4056	98	11	3.1	-0.3	0.4	64	45.68
0630	606786.09	5327954.21	99-JJ-0699	10	2	3	28	19	6782	111	16	10.4	0.4	0.5	66	34.19
0631	606613.00	5330470.00	99-JJ-0701	1	2	-3	23	16	5317	73	13	4.8	-0.3	0.4	70	44.88
0632	604280.84	5327833.55	99-JJ-0702	2	<1	-4	25	8	4742	74	11	4.2	-0.4	0.5	96	72.11
0633	605067.00	5323940.00	99-JJ-0703	2	1	-3	11	12	3761	40	12	13.4	-0.3	0.6	52	35.63
0634	605067.00	5318540.00	99-JJ-0704	2	<1	-3	17	15	4702	58	13	4.8	-0.3	0.4	92	40.27
0635	604490.00	5317720.00	99-JJ-0705	2	1	-3	22	17	10083	434	15	9.3	-0.3	0.4	140	42.58
0636	603769.55	5318120.34	99-JJ-0706	3	<1	-3	25	16	21645	204	12	17.2	-0.3	0.5	96	61.51
0638	602044.59	5318462.10	99-JJ-0708	3	3	-3	12	15	4908	101	12	21.8	-0.3	0.5	118	42.95
0640	602312.75	5319784.97	99-JJ-0711	3	<1	-3	13	16	4959	60	11	10.7	-0.3	-0.3	97	40.18
0641	601352.00	5318870.00	99-JJ-0712	2	1	-3	15	19	6790	92	11	8.5	-0.3	0.4	111	45.53
0642	601048.00	5318370.00	99-JJ-0713	2	4	-4	21	18	3634	48	14	4.8	-0.4	-0.4	120	61.84
0643	599693.93	5318382.60	99-JJ-0714	2	<1	-3	14	14	3882	81	13	7.2	-0.3	0.3	89	41.56
0644	599041.48	5317329.61	99-JJ-0715	1	<1	-3	24	19	5673	90	14	7.9	0.3	0.7	100	53.55
0645	597954.12	5317838.88	99-JJ-0716	3	3	-7	74	28	15050	147	31	6.1	1.2	-0.7	235	49.81
0646	597167.00	5318720.00	99-JJ-0717	7	<1	-8	56	11	4046	85	16	4.1	1.7	-0.8	113	66.5
0647	596833.00	5318620.00	99-JJ-0718	5	2	-3	57	17	5392	99	22	4.1	0.6	0.3	142	61.29
0648	595817.00	5317720.00	99-JJ-0719	2	1	-3	41	14	4673	84	14	8.8	0.8	0.6	76	40.17
0649	594135.12	5318645.93	99-JJ-0721	2	3	-3	56	13	4987	87	19	8.3	1.8	1.2	80	55.11
0650	593694.00	5318520.00	99-JJ-0722	1	2	-3	38	14	5464	69	19	7.9	0.4	0.9	72	42.53
0651	591596.89	5318659.21	99-JJ-0723	2	1	-3	44	13	5736	60	19	11.0	0.8	0.9	89	41.82
0652	591890.00	5319020.00	99-JJ-0724	1	2	-3	43	15	7071	104	13	7.8	3.6	2.4	64	37.51
0653	590528.99	5318567.90	99-JJ-0725	2	2	-3	24	22	14885	224	16	8.2	0.6	1.1	82	26.04
0654	589981.52	5318383.75	99-JJ-0726	<1	<1	-3	47	13	4690	50	14	4.9	0.7	0.9	70	38.82
0655	588159.80	5318979.98	99-JJ-0727	<1	1	-3	47	11	3926	42	14	6.6	1.1	1.0	61	36.7
0656	587606.18	5318358.20	99-JJ-0728	<1	1	-3	41	14	7183	81	16	7.6	1.0	1.0	82	44.38
0657	588020.67	5318208.14	99-JJ-0729	1	<1	-3	46	18	8951	175	14	4.6	-0.3	0.7	103	44.96

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------>	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------>	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0658	588300.36	5318179.99	99-JJ-0731	2	2	-3	50	10	12529	125	12	3.1	-0.3	0.5	153	53.16
0659	588998.16	5317800.57	99-JJ-0732	2	2	-3	46	15	6121	156	17	7.4	1.6	1.2	101	52.03
0660	587917.26	5317561.56	99-JJ-0733	1	1	-3	99	12	4555	43	19	6.8	0.6	0.7	83	41.16
0661	588741.16	5317270.79	99-JJ-0734	1	1	-3	50	14	5154	166	15	8.3	1.3	0.9	95	51.04
0662	590084.92	5317409.90	99-JJ-0735	4	1	-3	60	22	10850	259	18	8.7	1.5	1.1	141	50.05
0663	591784.00	5316540.00	99-JJ-0736	1	2	-3	71	31	7878	127	19	3.8	6.6	2.5	104	41.04
0664	592265.61	5316974.59	99-JJ-0737	2	3	3	88	12	3208	43	26	6.0	3.0	1.8	105	56.22
0665	592566.54	5317824.73	99-JJ-0738	3	<1	-3	39	22	10521	281	17	22.1	1.0	0.9	83	46.84
0666	594199.45	5317757.46	99-JJ-0739	2	2	-3	58	26	8476	109	24	4.2	-0.3	0.9	101	41.45
0667	596927.20	5317949.75	99-JJ-0741	2	<1	-3	89	8	2047	30	16	5.0	1.0	0.7	111	66.54
0668	597334.00	5317370.00	99-JJ-0742	2	<1	-3	85	15	4374	47	16	7.0	3.6	1.0	79	33.53
0669	598538.08	5317406.28	99-JJ-0743	2	<1	-3	49	9	5040	74	16	4.2	0.9	0.6	94	57.41
0670	597864.00	5316780.00	99-JJ-0744	1	3	-3	57	29	9677	100	38	3.4	1.2	0.9	159	47.86
0671	598588.86	5317824.76	99-JJ-0745	2	2	-3	69	25	9667	304	13	16.6	1.8	0.7	159	53.98
0672	600475.77	5317710.72	99-JJ-0746	2	3	n/a	10	16	4625	64	10	12.0	n/a	n/a	74	30.61
0673	600061.57	5317644.26	99-JJ-0747	1	<1	-3	13	11	2383	31	9	5.4	-0.3	0.4	67	45.88
0675	600783.02	5317904.34	99-JJ-0749	2	<1	-3	14	11	2445	30	9	22.2	-0.3	0.4	65	53.45
0676	600570.96	5318205.98	99-JJ-0751	1	<1	-3	16	12	2553	31	10	5.7	-0.3	0.5	35	53.26
0677	601731.00	5317390.00	99-JJ-0752	<1	2	-3	14	22	7202	77	10	9.9	-0.3	0.5	87	42.85
0678	602580.00	5316080.00	99-JJ-0753	1	<1	-3	15	16	4135	92	13	7.5	1.4	0.3	96	41.02
0679	605635.12	5316773.25	99-JJ-0754	2	3	-3	20	23	10902	185	11	10.9	-0.3	0.6	69	47.84
0680	605299.25	5316596.33	99-JJ-0755	2	<1	-3	33	21	12642	134	14	9.8	-0.3	0.4	107	63.2
0681	606083.00	5316740.00	99-JJ-0756	1	2	-3	17	17	7343	107	8	7.8	-0.3	0.5	60	41.82
0682	609989.75	5316959.55	99-JJ-0757	3	<1	-3	42	24	10155	138	14	9.8	0.5	0.8	139	48.55
0683	611065.44	5316410.60	99-JJ-0758	<1	1	-3	16	6	1664	62	7	8.4	-0.3	0.4	37	58.11
0684	623975.00	5318040.00	99-JJ-0759	2	<1	-3	14	20	10104	116	11	20.2	-0.3	0.4	108	58.12
0685	626734.00	5322040.00	99-JJ-0761	2	2	-3	21	19	5695	49	17	8.9	-0.3	0.5	98	48.51
0686	626757.69	5325623.72	99-JJ-0762	22	2	-3	49	25	8874	36	25	6.7	1.0	0.8	125	46.94
0687	627538.00	5327850.00	99-JJ-0763	1	4	-10	19	18	6888	70	15	4.3	-1.0	-1.0	119	61.05
0688	629616.26	5331460.78	99-JJ-0764	1	<1	-3	12	19	12394	146	12	7.1	-0.3	-0.3	79	25.64
0689	631389.00	5334980.00	99-JJ-0765	2	2	-3	18	16	4737	50	16	4.6	-0.3	0.4	72	50.35
0690	632269.00	5339100.00	99-JJ-0766	3	2	-3	148	34	6129	67	30	5.8	-0.3	0.4	91	41.97
0692	631316.68	5343766.32	99-JJ-0768	3	<1	-3	17	9	4614	77	13	6.3	4.4	0.5	45	36.05
0693	630480.00	5344200.00	99-JJ-0769	1	1	-3	69	9	6279	90	15	3.5	0.6	0.4	104	62.1
0694	630925.52	5345334.30	99-JJ-0771	3	<1	-3	32	15	9559	183	14	12.2	-0.3	0.6	98	40.69
0695	631606.29	5344697.82	99-JJ-0772	1	1	-3	56	20	12352	223	21	8.6	0.5	0.7	96	32.41
0696	631859.00	5344820.00	99-JJ-0773	2	<1	-3	171	11	5193	96	14	4.2	1.4	0.7	103	62.97
0697	632385.65	5344484.62	99-JJ-0774	15	<1	-3	67	22	19549	85	18	5.5	1.2	0.7	96	27.96
0698	632626.45	5344795.68	99-JJ-0775	2	2	-3	36	10	4814	78	12	4.9	-0.3	0.5	60	48.59
0699	632663.02	5345254.00	99-JJ-0776	2	<1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	91.81
0700	633649.00	5344620.00	99-JJ-0777	6	1	-3	67	22	8472	99	11	4.5	0.9	0.4	50	20.48
0701	633816.00	5345440.00	99-JJ-0778	2	1	-3	21	14	9494	340	12	6.5	-0.3	0.5	66	40.03
0702	634862.00	5345070.00	99-JJ-0779	2	2	-3	12	8	7017	277	8	8.9	-0.3	-0.3	42	14.16
0703	634922.00	5344590.00	99-JJ-0781	4	2	-3	36	15	12046	133	13	6.2	-0.3	0.6	60	34.98
0704	636847.25	5344948.82	99-JJ-0782	1	2	-3	142	14	4663	86	19	6.0	0.7	0.6	83	54.74
0705	637257.56	5345084.70	99-JJ-0783	3	2	-3	76	26	6152	148	22	6.6	0.6	0.5	112	64.84
0706	639069.67	5344799.82	99-JJ-0784	2	<1	-3	38	14	7002	69	13	3.4	-0.3	0.6	43	38.84
0707	639441.00	5344200.00	99-JJ-0785	4	3	-3	29	25	16097	365	19	5.7	-0.3	0.6	93	25.66
0708	641016.32	5344721.79	99-JJ-0786	4	<1	-3	46	26	30168	255	26	7.9	0.7	0.7	158	36.45
0709	641634.61	5344517.96	99-JJ-0787	<1	<1	-3	38	11	3228	30	22	6.0	-0.3	0.4	76	48.82
0710	642420.25	5343452.79	99-JJ-0788	4	<1	-3	31	19	14646	519	20	12.6	-0.3	0.5	127	40.84
0711	641247.98	5342718.70	99-JJ-0789	4	<1	-3	31	11	3094	45	21	3.1	-0.3	0.5	71	65.77
0713	642837.00	5341480.00	99-JJ-0792	2	<1	-3	56	21	8587	155	17	5.9	-0.3	0.8	85	53.44
0714	640472.00	5340750.00	99-JJ-0793	1	2	-3	74	20	7700	106	27	3.4	-0.3	0.4	113	51.6
0715	640175.70	5341573.46	99-JJ-0794	2	2	-3	42	8	3089	40	24	5.3	-0.3	0.4	80	59.27
0716	638367.45	5340033.05	99-JJ-0795	<1	2	-3	44	12	3965	51	21	3.3	-0.3	0.6	95	57.71
0717	637788.00	5339420.00	99-JJ-0796	<1	1	-3	32	151	43369	320	71	6.8	-0.3	0.9	202	21.39
0718	637697.00	5338890.00	99-JJ-0797	4	2	-3	56	20	7362	161	21	13.5	-0.3	0.7	88	73.7
0719	633423.53	5335330.09	99-JJ-0798	2	<1	-3	18	14	4015	37	18	12.4	-0.3	0.4	82	49.96
0720	633040.89	5334909.19	99-JJ-0799	<1	<1	-3	16	11	3665	60	11	3.3	-0.3	0.5	50	37.39
0721	633383.71	5334547.51	99-JJ-0801	2	<1	-3	14	7	2891	41	13	5.1	-0.3	0.3	64	42.93

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0722	633033.16	5332449.82	99-JJ-0802	2	1	-3	37	12	3217	35	20	5.9	-0.3	0.4	74	61.22
0723	628359.27	5326841.39	99-JJ-0803	<1	<1	-3	11	18	4430	53	14	7.8	-0.3	0.6	56	25.6
0724	627580.18	5326399.67	99-JJ-0804	4	2	-3	29	17	6769	139	15	10.1	-0.3	0.5	92	31.96
0725	625582.20	5325736.87	99-JJ-0805	6	2	-3	46	16	4893	54	22	8.0	-0.3	0.9	99	53.81
0726	624944.37	5324881.16	99-JJ-0806	<1	1	3	13	10	5107	57	13	10.7	-0.3	0.4	79	20.33
0727	622974.00	5321740.00	99-JJ-0807	2	<1	-3	23	20	6145	79	14	8.0	-0.3	0.3	88	50.97
0728	618136.79	5318219.67	99-JJ-0808	1	<1	-3	12	12	5295	61	11	10.5	0.6	0.9	48	30.19
0729	619805.46	5319178.24	99-JJ-0809	2	<1	-3	8	9	3286	29	9	13.7	0.6	0.7	39	38.8
0730	619987.16	5320660.36	99-JJ-0811	9	5	-3	36	19	9111	233	43	13.8	-0.3	0.5	198	30.11
0731	619978.59	5321465.50	99-JJ-0812	14	4	6	25	15	8190	129	22	8.4	-0.3	0.6	125	45.85
0732	620897.00	5321310.00	99-JJ-0813	21	3	-3	29	24	8931	202	24	14.5	-0.3	0.6	182	39.76
0733	621276.00	5320890.00	99-JJ-0814	5	1	-3	16	12	7607	111	19	13.2	-0.3	0.6	95	29.4
0734	620700.00	5322830.00	99-JJ-0815	15	1	-3	27	24	9256	145	22	8.4	-0.3	0.8	143	45.22
0735	621444.32	5324257.26	99-JJ-0816	2	<1	-3	28	24	9294	699	19	8.6	-0.3	0.5	140	49.33
0736	621761.00	5324540.00	99-JJ-0817	2	2	-3	35	18	4424	173	15	4.3	0.8	0.5	107	61.65
0737	622966.18	5325730.19	99-JJ-0818	2	1	-3	27	14	11753	239	18	8.2	3.1	1.4	102	61.06
0738	627833.80	5328371.96	99-JJ-0819	<1	<1	-3	10	12	3749	52	8	7.7	-0.3	0.4	43	52.31
0739	628701.68	5329016.57	99-JJ-0821	1	1	-3	14	12	3561	37	13	5.8	-0.3	0.4	62	51.17
0740	630252.00	5331910.00	99-JJ-0822	2	1	-3	13	15	3645	49	9	4.4	2.1	0.5	60	39.18
0741	631132.00	5333660.00	99-JJ-0823	1	<1	n/a	22	23	3582	53	19	6.9	n/a	n/a	75	51.97
0742	631753.00	5333690.00	99-JJ-0824	2	2	-3	20	13	14146	333	10	5.6	-0.3	0.4	79	59.37
0743	632481.23	5335456.17	99-JJ-0825	<1	1	-3	15	17	4919	88	11	6.3	-0.3	0.5	49	31.78
0744	632539.00	5337370.00	99-JJ-0826	1	1	-3	24	29	9101	153	13	4.7	-0.3	0.5	98	53.3
0745	632390.00	5337980.00	99-JJ-0827	2	2	-3	30	17	2635	57	14	3.0	0.7	1.0	62	53.67
0746	632724.00	5338890.00	99-JJ-0828	3	3	-3	49	33	5615	86	19	4.0	0.9	1.2	75	39.86
0747	632307.66	5340425.10	99-JJ-0829	3	<1	-3	19	21	10231	179	9	3.5	-0.3	0.4	57	19.44
0748	632528.22	5340398.76	99-JJ-0831	5	<1	-3	61	22	10605	106	13	4.0	1.7	0.7	60	32.74
0749	633342.77	5340862.16	99-JJ-0832	4	3	-3	24	27	10984	208	13	3.7	1.0	0.9	83	32.41
0750	634195.00	5341040.00	99-JJ-0833	2	<1	n/a	29	21	5523	80	12	3.0	n/a	n/a	81	71.73
0751	634543.00	5341040.00	99-JJ-0834	2	1	-8	27	15	3624	53	9	2.7	-0.8	-0.8	109	67.89
0752	634847.00	5341420.00	99-JJ-0835	<1	2	-3	12	14	5880	170	8	3.9	-0.3	0.4	45	16.69
0753	635400.60	5341612.02	99-JJ-0836	3	<1	n/a	15	6	1654	59	10	5.1	n/a	n/a	46	66.51
0754	635377.00	5341910.00	99-JJ-0837	2	<1	n/a	16	8	4408	55	8	5.9	n/a	n/a	50	77.2
0755	634261.54	5342069.54	99-JJ-0838	4	2	-3	38	22	6958	125	13	4.3	0.8	0.8	67	46
0756	634392.00	5343120.00	99-JJ-0839	2	<1	-6	20	12	6132	140	7	2.7	-0.6	-0.6	64	60.7
0758	635787.00	5343040.00	99-JJ-0842	3	3	5	21	14	3193	60	9	3.7	-2.9	-2.9	111	60.34
0759	637879.00	5342940.00	99-JJ-0843	3	1	-4	16	8	2441	41	8	2.3	-0.4	-0.4	70	67.19
0760	638167.00	5342770.00	99-JJ-0844	4	<1	-4	31	13	6404	80	8	3.8	-0.4	0.6	86	53.21
0761	638992.30	5342509.15	99-JJ-0845	4	<1	3	39	20	7883	88	16	3.4	0.9	0.8	84	47.33
0762	638789.00	5343130.00	99-JJ-0846	4	<1	-8	32	13	4724	42	10	2.9	-7.5	-7.5	77	48.68
0763	640726.16	5343314.90	99-JJ-0847	2	<1	-3	19	6	2367	36	9	1.6	0.9	0.4	80	56.28
0764	640219.70	5342672.32	99-JJ-0848	3	<1	n/a	26	16	5328	65	11	2.3	n/a	n/a	85	63.32
0765	637985.00	5341980.00	99-JJ-0849	4	1	-3	35	14	4137	67	14	3.3	2.0	0.7	61	49.79
0766	638364.00	5341190.00	99-JJ-0851	4	<1	4	54	13	4199	55	14	2.9	-0.6	-0.6	79	42.47
0767	639026.85	5340834.73	99-JJ-0852	5	<1	-3	47	16	3272	54	13	2.2	0.5	0.6	105	40.7
0769	636014.00	5340450.00	99-JJ-0854	3	2	-3	78	16	4977	48	15	3.8	1.4	0.6	76	42.06
0770	636014.00	5339780.00	99-JJ-0855	4	5	-4	136	14	3963	62	17	2.3	1.9	0.9	191	48.5
0771	634801.89	5339491.89	99-JJ-0856	2	1	-5	43	12	4121	51	12	2.9	-0.5	-0.5	82	50.03
0772	634998.00	5338860.00	99-JJ-0857	1	2	-5	35	19	6687	95	17	6.8	1.6	3.8	92	58.86
0773	636878.00	5338220.00	99-JJ-0858	<1	2	-4	54	23	3030	34	26	3.1	-0.4	0.4	92	47.27
0774	637231.74	5337660.85	99-JJ-0859	3	2	-4	41	18	3977	77	23	12.7	-0.3	0.4	87	50.02
0775	635502.16	5337531.29	99-JJ-0861	3	1	-5	15	10	2019	43	10	17.5	-0.5	0.5	31	81.03
0776	634195.00	5337690.00	99-JJ-0862	2	<1	-8	30	22	5362	99	15	3.1	0.8	-0.8	80	62.37
0777	634246.83	5335974.32	99-JJ-0863	1	<1	-3	14	10	2882	37	10	3.1	-0.3	-0.3	43	45.46
0778	633112.54	5333315.98	99-JJ-0864	1	<1	-3	10	15	4756	95	12	5.4	-0.3	-0.3	67	38.36
0779	632936.00	5328440.00	99-JJ-0865	1	<1	-3	17	13	4542	71	10	4.5	-0.3	-0.3	60	34.21
0780	631704.66	5325802.15	99-JJ-0866	1	<1	-5	17	13	5562	49	10	5.4	-0.5	-0.5	61	64.4
0781	628509.32	5321341.35	99-JJ-0867	2	<1	-3	50	37	6825	84	47	4.1	0.7	0.4	152	38.03
0782	628690.00	5319630.00	99-JJ-0868	3	2	-3	44	30	8654	139	29	6.4	-0.3	0.4	145	56.72
0783	627705.00	5319920.00	99-JJ-0869	3	<1	-3	24	22	7818	96	17	18.7	4.0	1.4	82	38.46
0784	622837.09	5317937.32	99-JJ-0871	1	<1	3	13	10	3122	35	8	6.2	-0.5	-0.5	50	51.23

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0785	620078.00	5318220.00	99-JJ-0872	<1	<1	7	12	16	4411	55	7	6.4	-1.9	-1.9	62	48.61
0786	618122.00	5318950.00	99-JJ-0873	1	2	-3	17	14	7601	54	12	9.9	-0.3	0.4	80	36.18
0787	620099.45	5323279.34	99-JJ-0874	67	2	-5	27	25	36321	1260	15	40.8	-0.5	-0.5	178	53.87
0788	622369.51	5322591.74	99-JJ-0875	10	1	3	30	33	16531	212	22	22.5	0.4	0.4	139	23.23
0789	625534.36	5322295.74	99-JJ-0876	8	<1	-3	14	11	3465	65	15	9.6	-0.3	-0.3	91	51.11
0790	632587.00	5324920.00	99-JJ-0877	1	<1	-3	6	34	8996	93	13	5.7	-0.3	0.4	66	31.91
0791	634710.00	5327900.00	99-JJ-0878	2	<1	-3	24	24	7146	78	10	5.9	-0.3	-0.3	75	53.58
0792	638774.00	5330170.00	99-JJ-0879	<1	2	-3	20	27	6378	105	16	4.7	-0.3	0.3	81	45.35
0793	642064.00	5331050.00	99-JJ-0881	1	2	-3	22	20	4304	78	10	3.4	-0.3	0.5	83	38.18
0794	643600.76	5330115.64	99-JJ-0882	2	<1	-3	13	16	4467	41	13	5.2	-0.3	0.4	74	54
0795	647384.43	5329044.87	99-JJ-0883	<1	1	-3	16	19	6595	60	12	4.3	-0.3	0.4	87	44.34
0796	648300.47	5329714.24	99-JJ-0884	2	<1	-3	25	11	3067	37	17	12.4	0.9	0.6	63	45.63
0797	648114.00	5330520.00	99-JJ-0885	<1	<1	-3	44	56	5843	50	38	3.4	-0.3	0.6	92	47.76
0798	647932.00	5331250.00	99-JJ-0886	1	<1	-3	17	8	2966	29	9	7.0	-0.3	0.5	26	42.3
0799	647129.00	5331350.00	99-JJ-0887	2	<1	-3	28	24	4818	52	21	6.1	-0.3	0.7	73	45.86
0800	646674.92	5331501.12	99-JJ-0888	<1	<1	-3	40	44	7407	93	23	5.1	0.6	0.7	72	48.31
0801	648041.68	5332685.36	99-Jj-0889	2	<1	-3	16	8	3763	38	12	8.1	-0.3	0.4	35	39.23
0802	648326.00	5335230.00	99-JJ-0891	1	<1	-3	19	9	2880	33	19	5.8	-0.3	0.4	51	51.81
0803	648156.84	5335932.82	99-JJ-0892	<1	<1	-3	13	10	3005	33	13	7.9	-0.3	0.4	26	46.98
0804	647887.00	5336520.00	99-JJ-0893	2	<1	-3	16	4	4074	57	11	4.0	2.6	0.5	57	41.34
0805	647051.73	5337001.43	99-JJ-0894	2	<1	-3	21	7	3090	38	12	2.1	-0.3	0.4	69	47.34
0806	646661.07	5337795.25	99-JJ-0895	3	<1	-3	18	11	3197	33	10	4.6	0.5	0.5	64	38.32
0807	646065.90	5337613.66	99-JJ-0896	2	<1	-3	28	15	4483	68	14	10.0	-0.3	0.6	82	33.62
0808	646073.10	5338491.49	99-JJ-0897	1	<1	-3	23	<4	1436	27	9	4.5	-0.3	0.4	65	49.8
0809	647793.32	5338261.35	99-JJ-0898	2	<1	-3	26	18	6945	75	15	3.8	-0.3	0.6	141	45.5
0810	645552.00	5340030.00	99-JJ-0899	3	1	-3	31	23	12126	190	19	5.8	-0.3	0.4	97	44.44
0811	645885.00	5339770.00	99-JJ-0901	3	<1	-3	25	22	11797	227	18	9.4	0.6	0.6	118	37.82
0812	645275.10	5339607.54	99-JJ-0902	1	1	-3	26	11	9363	206	12	5.2	0.4	0.4	104	58.49
0813	645079.53	5339291.71	99-JJ-0903	7	2	-3	20	24	15957	880	17	25.5	-0.3	0.6	213	47.85
0814	644454.77	5339589.30	99-JJ-0904	<1	<1	-3	23	15	7707	236	15	5.4	-0.3	0.7	84	37.12
0815	644143.94	5338442.47	99-JJ-0905	2	<1	-3	35	24	21044	1124	18	7.5	1.2	0.6	150	41.44
0816	644961.46	5337614.96	99-JJ-0906	2	<1	-3	31	8	4315	77	12	2.7	0.6	0.6	64	40.1
0819	642701.00	5338100.00	99-JJ-0909	4	2	-3	58	29	17448	520	22	6.4	0.3	0.8	176	37.27
0820	639638.00	5338660.00	99-JJ-0911	1	<1	-3	40	12	4068	64	13	7.0	-0.3	0.6	30	43.46
0821	639694.05	5337526.92	99-JJ-0912	2	<1	-3	46	7	2575	34	19	5.5	3.9	0.6	83	51.93
0823	638378.94	5335953.84	99-JJ-0914	<1	<1	-3	17	10	4232	47	14	6.9	-0.3	0.5	68	35.65
0824	636060.00	5334870.00	99-JJ-0915	1	<1	-3	19	19	7226	78	20	4.9	0.8	0.4	81	43.9
0825	635648.21	5333809.70	99-JJ-0916	2	<1	-3	16	8	4996	41	15	8.0	-0.3	0.5	82	38.33
0826	634665.00	5333020.00	99-JJ-0917	2	<1	-3	18	5	2779	43	11	4.0	1.8	0.3	49	49.12
0827	634756.00	5332430.00	99-JJ-0918	1	2	-3	12	5	3067	41	10	6.4	-0.3	1.1	46	43.84
0828	634345.48	5330584.32	99-JJ-0919	<1	2	-3	5	7	4344	47	7	4.7	-0.3	0.4	29	15.7
0829	632703.90	5327924.03	99-JJ-0921	2	<1	-3	15	9	6534	88	9	18.1	-0.3	0.7	71	29.72
0830	632054.68	5327328.19	99-JJ-0922	<1	<1	-3	10	5	3262	34	9	7.4	-0.3	0.5	61	35.93
0831	630109.83	5325933.12	99-JJ-0923	2	<1	-3	12	4	2756	25	9	9.3	-0.3	0.5	48	42.8
0832	626932.00	5323710.00	99-JJ-0924	7	<1	-3	30	17	7003	102	22	6.5	-0.3	0.7	97	44.56
0833	622823.73	5320536.91	99-JJ-0925	2	1	-3	10	11	4985	55	10	17.7	-0.3	0.6	90	31.57
0834	612426.22	5314446.24	99-JJ-0926	1	3	-3	30	17	5725	90	19	9.5	-0.3	0.6	116	32.03
0835	609070.00	5315080.00	99-JJ-0927	5	<1	-3	30	16	7790	143	28	20.3	-0.3	0.7	193	42.9
0836	605442.14	5313503.35	99-JJ-0928	7	<1	-3	29	15	14364	276	13	43.3	-0.3	0.7	143	56.44
0837	603772.78	5314727.09	99-JJ-0929	<1	<1	-3	17	5	3189	45	13	14.3	-0.3	0.5	67	44.7
0838	601272.21	5316354.12	99-JJ-0931	1	<1	-3	15	5	3867	36	12	6.7	-0.3	0.4	56	47.56
0839	597525.48	5316689.93	99-JJ-0932	3	<1	-4	58	10	3712	48	31	11.5	0.8	0.7	94	58.43
0840	594164.00	5317740.00	99-JJ-0933	2	<1	-3	46	19	7730	116	24	12.9	0.5	0.8	108	46.23
0841	593861.00	5316900.00	99-JJ-0934	2	1	-3	49	9	3990	68	16	4.6	1.0	0.8	71	45.19
0842	593127.74	5315488.78	99-JJ-0935	3	3	-3	30	12	5279	60	20	9.3	-0.3	0.7	87	40.34
0843	592679.00	5314790.00	99-JJ-0936	3	2	-3	33	8	4981	100	18	17.3	0.4	0.9	86	44.63
0844	590674.90	5315746.07	99-JJ-0937	2	<1	-3	44	5	2982	32	15	4.9	0.6	0.8	70	46.59
0845	591048.56	5315677.59	99-JJ-0938	2	1	-3	41	14	3642	46	23	8.3	2.6	0.9	102	49.83
0846	591139.63	5315336.57	99-JJ-0939	2	2	-3	36	10	5140	52	20	10.4	1.4	0.9	83	50.61
0847	591839.62	5315689.59	99-JJ-0941	2	<1	-3	34	7	3521	48	17	8.7	0.8	0.8	82	48.92
0848	589600.00	5315660.00	99-JJ-0942	3	<1	-3	48	9	3586	43	25	7.4	1.0	0.7	105	62.26

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method-------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units-------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0849	589519.98	5315053.44	99-JJ-0943	4	<1	-6	73	17	5278	30	30	8.5	1.5	0.9	140	61.77
0850	588918.00	5315330.00	99-JJ-0944	3	<1	-4	48	15	5740	44	25	7.7	0.7	0.6	88	49.98
0851	588130.00	5315800.00	99-JJ-0945	3	<1	n/a	54	12	3441	31	19	6.8	n/a	n/a	64	60.15
0852	588236.00	5316110.00	99-JJ-0946	2	<1	-3	49	13	5661	119	20	20.5	1.0	0.9	81	55.96
0853	587697.92	5315836.65	99-JJ-0947	5	2	-3	47	8	3296	46	10	11.3	1.5	1.1	88	56.49
0854	585643.42	5316193.44	99-JJ-0948	4	1	-3	77	5	5663	68	11	9.1	1.7	1.2	75	45.89
0855	588433.00	5314310.00	99-JJ-0949	2	2	-3	113	19	14407	353	19	6.7	3.7	2.3	114	44.38
0856	587832.68	5313619.83	99-JJ-0951	<1	2	-3	166	9	7183	80	15	10.2	4.2	1.9	86	46.26
0857	588420.24	5313660.67	99-JJ-0952	<1	<1	-3	212	8	10601	80	18	11.5	3.2	2.4	70	47.25
0858	588182.01	5313114.77	99-JJ-0953	<1	3	-3	92	4	3862	63	11	14.1	3.8	3.0	57	59.26
0859	588736.00	5312850.00	99-JJ-0954	4	<1	-3	178	10	5517	62	13	9.3	11.0	4.1	52	41.11
0860	590519.18	5313011.79	99-JJ-0955	5	2	-3	46	11	9985	151	14	8.1	1.3	1.2	68	31.4
0862	590680.12	5314606.45	99-JJ-0957	3	<1	-3	63	11	4724	72	29	12.0	1.7	1.2	118	58.68
0863	590504.70	5314141.10	99-JJ-0958	1	3	-4	86	15	3275	30	18	13.1	2.6	1.2	61	57.8
0864	591117.00	5314020.00	99-JJ-0959	4	1	-8	78	8	4135	31	16	7.8	1.0	-0.8	77	45.3
0865	592087.89	5313921.19	99-JJ-0961	<1	4	-3	29	8	6947	188	15	16.7	0.8	0.9	112	41.58
0866	591805.55	5313425.30	99-JJ-0962	<1	<1	-5	59	10	5124	48	23	7.1	0.6	-0.5	93	57.07
0867	591557.70	5313360.81	99-JJ-0963	3	<1	-3	48	5	3158	34	17	10.0	0.6	0.9	63	49.51
0868	591561.54	5312695.41	99-JJ-0964	<1	2	-3	51	5	3993	44	14	9.6	0.7	0.9	54	45.9
0869	591912.49	5312803.61	99-JJ-0965	2	3	-3	53	6	3987	50	14	7.5	1.3	0.9	46	46.21
0870	591875.59	5312315.88	99-JJ-0966	<1	4	-3	98	16	7626	68	21	2.4	3.5	1.3	93	48.57
0871	591745.54	5311842.14	99-JJ-0967	<1	<1	-5	164	22	10452	261	18	7.3	2.1	1.3	95	49.15
0872	591301.99	5312168.44	99-JJ-0968	6	3	-3	84	15	15516	1288	19	10.2	2.5	1.8	118	50.81
0874	590254.72	5311443.60	99-JJ-0971	<1	<1	-3	57	9	6618	68	12	3.1	1.8	1.8	33	24.46
0875	591329.00	5311630.00	99-JJ-0972	6	<1	-3	107	26	34220	451	19	10.0	4.5	2.1	110	33.93
0876	592014.71	5311659.90	99-JJ-0973	<1	2	-3	82	10	4104	48	17	9.6	1.1	1.6	59	43.55
0877	591981.00	5311080.00	99-JJ-0974	6	2	-3	111	25	41853	789	20	8.2	5.3	3.3	108	34.28
0878	592838.54	5311178.50	99-JJ-0975	<1	3	-3	68	11	7202	78	13	6.0	1.4	1.4	65	37.21
0879	593537.56	5310735.97	99-JJ-0976	3	<1	-3	60	13	9825	112	16	6.6	1.6	1.6	58	33.8
0880	593983.00	5311490.00	99-JJ-0977	<1	2	-3	89	20	10042	140	17	4.4	2.0	1.9	84	35.86
0881	593034.97	5312187.47	99-JJ-0978	4	6	-3	97	12	5752	94	14	11.2	1.7	1.4	65	37.34
0882	592915.41	5311867.39	99-JJ-0979	2	<1	-3	71	<4	3512	158	13	11.3	1.3	1.3	79	52.5
0883	593515.93	5313517.15	99-JJ-0981	3	<1	-4	65	12	3383	46	19	2.6	0.9	0.5	100	50.79
0884	594153.23	5313581.78	99-JJ-0982	2	<1	-3	27	16	4712	76	12	7.1	-0.3	0.8	67	32.42
0885	594877.00	5313690.00	99-JJ-0983	1	2	-3	22	19	6813	90	12	3.5	-0.3	0.5	77	32.35
0886	594574.00	5314720.00	99-JJ-0984	5	<1	-3	36	22	7228	157	11	6.6	0.8	1.2	112	45.52
0887	597883.78	5314667.40	99-JJ-0985	2	3	-3	38	19	5221	66	21	25.3	1.7	0.5	128	47.13
0888	601913.30	5315410.93	99-JJ-0986	2	2	-3	18	15	4428	43	15	7.5	-0.3	0.6	51	48.18
0889	603384.00	5315360.00	99-JJ-0987	2	<1	-3	21	24	7229	185	16	5.2	-0.3	0.6	177	42.08
0890	610571.00	5315080.00	99-JJ-0988	2	<1	-3	31	20	5688	122	16	5.4	-0.3	0.7	127	45.11
0891	609298.12	5316225.60	99-JJ-0989	1	<1	-3	23	13	3258	30	16	4.8	-0.3	0.3	83	51
0892	608468.88	5316057.64	99-JJ-0991	1	1	-3	21	13	3024	30	14	8.4	-0.3	0.5	65	45.57
0893	608399.42	5316698.58	99-JJ-0992	3	2	-3	39	27	9100	459	12	8.6	-0.3	0.6	144	38.5
0894	607378.59	5316398.17	99-JJ-0993	<1	1	-3	24	11	3010	32	9	5.7	0.4	0.8	46	38.61
0895	605697.40	5315575.11	99-JJ-0994	2	<1	-3	32	24	5367	86	14	6.4	1.4	1.0	97	50.22
0896	605112.00	5315330.00	99-JJ-0995	2	<1	-3	38	26	6488	93	13	6.8	0.5	1.2	109	53.29
0897	604187.00	5315890.00	99-JJ-0996	3	<1	-3	18	14	3711	45	12	10.0	-0.3	0.7	92	40.62
0898	604647.49	5315984.00	99-JJ-0997	2	3	-3	27	16	4432	77	12	5.6	0.7	0.5	118	45.12
0899	604449.27	5316572.26	99-JJ-0998	2	2	-3	16	16	5256	105	8	7.4	0.4	0.4	79	45.8
0900	603809.51	5316419.16	99-JJ-0999	1	1	-3	9	15	3640	50	9	6.6	-0.3	0.5	72	40.81
0901	603041.22	5316850.00	99-JJ-1001	2	1	-3	14	14	4009	38	8	7.0	-0.3	0.5	65	45.85
0902	602716.00	5316010.00	99-JJ-1002	1	2	-3	20	19	5986	82	9	7.0	-0.3	0.5	91	51.1
0903	603186.00	5315750.00	99-JJ-1003	2	<1	-3	20	21	7566	125	10	6.4	-0.3	0.7	86	48.08
0904	601434.52	5315351.89	99-JJ-1004	2	<1	-3	18	12	2678	29	13	8.6	-0.3	0.6	34	54.47
0905	600442.00	5315730.00	99-JJ-1005	2	<1	-3	11	10	2782	35	8	8.8	-0.3	0.6	61	44.54
0906	600273.53	5315155.02	99-JJ-1006	14	<1	-3	19	15	3634	34	11	11.7	-0.3	1.2	96	50.16
0907	600035.38	5315200.59	99-JJ-1007	1	<1	-3	30	19	3561	40	23	2.7	-0.3	0.4	128	54.76
0908	599135.06	5315469.32	99-JJ-1008	1	<1	-3	34	12	2729	38	14	11.3	-0.3	0.7	71	55.1
0909	599512.44	5316632.16	99-JJ-1009	2	4	-3	20	17	7564	96	12	7.2	-0.3	0.6	97	49.24
0910	599994.54	5316624.78	99-JJ-1011	2	2	-3	7	13	4147	40	7	9.1	-0.3	0.5	35	30.39
0911	598640.04	5315983.61	99-JJ-1012	2	1	-3	27	15	3690	49	13	10.9	-0.3	0.8	70	44.09

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units--------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0912	597770.64	5315817.57	99-JJ-1013	1	2	-3	65	23	6281	69	25	6.0	-0.3	0.8	125	34.59
0913	596454.00	5315550.00	99-JJ-1014	3	2	-3	35	20	8972	116	14	4.1	0.8	0.9	89	20.15
0914	596107.37	5316932.63	99-JJ-1015	3	2	-3	41	12	5015	143	11	18.7	1.2	0.9	94	47.28
0915	595825.40	5316335.90	99-JJ-1016	2	3	-3	34	11	2714	42	11	3.9	1.8	0.5	54	56.89
0916	595309.04	5316431.99	99-JJ-1017	1	<1	-3	39	12	3271	44	16	3.4	1.0	0.8	74	49.74
0917	595634.97	5316054.02	99-JJ-1018	2	2	4	45	16	4549	59	18	5.9	7.9	0.9	74	49.01
0918	595211.00	5315700.00	99-JJ-1019	2	<1	-3	52	11	3102	26	10	2.1	0.6	0.4	57	38.63
0919	594286.00	5316160.00	99-JJ-1021	4	1	-4	83	19	3978	37	18	2.8	4.2	0.8	74	49.17
0920	593801.00	5315720.00	99-JJ-1022	2	<1	-3	34	20	6372	129	15	4.9	0.4	0.7	99	43.01
0921	593118.00	5316050.00	99-JJ-1023	4	<1	-4	50	29	10044	319	16	47.8	1.9	1.4	148	49.17
0922	593709.43	5314894.11	99-JJ-1024	3	3	-3	34	20	6959	74	17	5.8	-0.3	0.7	73	33.35
0923	594499.20	5314822.20	99-JJ-1025	3	2	-3	41	20	6488	84	20	3.5	-0.3	0.6	98	41.85
0924	595620.00	5314730.00	99-JJ-1026	2	<1	-3	35	26	11460	190	15	4.6	0.8	0.9	102	31.38
0925	599192.33	5314596.82	99-JJ-1027	<1	3	-3	23	17	5190	43	10	3.5	1.5	2.0	25	27.24
0926	600874.27	5314687.53	99-JJ-1028	1	2	-3	31	16	4676	95	13	12.4	-0.3	-0.3	100	38.16
0927	606488.99	5315059.43	99-JJ-1029	2	3	-3	20	15	5543	89	13	13.6	-0.3	0.6	67	44.27
0928	611380.53	5314804.09	99-JJ-1031	2	<1	-3	25	15	3666	53	17	8.7	-0.3	0.6	86	46.83
0930	611359.63	5315541.01	99-JJ-1033	2	<1	-3	25	14	3424	38	18	8.0	-0.3	0.7	86	39.17
0931	609944.05	5316261.21	99-JJ-1034	2	1	-3	16	11	2721	27	13	5.5	-0.3	0.5	47	50.24
0932	607551.14	5315167.33	99-JJ-1035	2	2	-3	29	19	3913	55	17	9.8	0.4	0.9	59	45.29
0933	605893.71	5314809.67	99-JJ-1036	1	<1	-3	23	15	2899	31	13	7.4	-0.3	0.6	37	42.49
0934	603945.00	5314290.00	99-JJ-1037	2	<1	-5	26	16	3724	41	18	8.3	-0.5	-0.5	91	49.36
0935	600651.30	5314050.89	99-JJ-1038	2	<1	-3	36	15	5084	99	13	14.9	-0.3	0.4	124	45.26
0936	600015.21	5314072.25	99-JJ-1039	1	2	-3	28	17	4812	59	15	6.9	-0.3	0.4	88	35.63
0937	600230.00	5313320.00	99-JJ-1041	2	2	-3	59	24	6414	129	12	7.8	-0.3	-0.3	102	51.51
0938	599099.18	5313990.77	99-JJ-1042	2	1	-7	48	10	2033	30	9	1.7	-0.7	-0.7	79	55.46
0939	598751.75	5314161.55	99-JJ-1043	1	2	-3	41	13	3926	56	13	2.7	0.4	0.5	97	58.24
0940	597646.12	5313550.25	99-JJ-1044	2	<1	-3	50	13	3077	32	13	7.9	-0.3	0.6	86	38.69
0941	595340.81	5314405.09	99-JJ-1045	4	<1	-3	40	16	4291	38	12	6.2	0.3	0.7	83	47.54
0942	595519.19	5313690.68	99-JJ-1046	2	1	-3	52	24	7218	261	13	6.4	0.7	1.1	156	57.48
0943	595502.71	5312642.46	99-JJ-1047	2	5	-3	31	27	15854	348	15	5.9	0.8	1.0	110	17.37
0944	594647.15	5312922.17	99-JJ-1048	2	2	-3	39	30	13386	242	15	6.8	1.0	0.8	109	29.43
0946	595917.35	5311936.91	99-JJ-1051	3	<1	-3	49	8	2310	24	9	8.0	0.9	0.6	67	56.41
0947	595307.82	5311537.74	99-JJ-1052	2	<1	-3	45	12	3907	52	14	4.7	0.4	0.7	91	58.72
0948	595254.51	5311196.20	99-JJ-1053	2	<1	-3	48	10	6355	134	10	7.5	0.6	0.7	97	55.78
0949	594990.84	5310866.19	99-JJ-1054	2	2	-3	56	10	3694	42	9	5.3	0.6	1.0	42	43.36
0950	597961.66	5309340.22	99-JJ-1055	2	<1	-3	25	5	4429	92	7	8.1	0.4	0.6	63	55.08
0951	599153.00	5310110.00	99-JJ-1056	2	<1	-3	40	12	4643	103	10	5.3	0.6	0.8	60	44.95
0952	598854.83	5311022.64	99-JJ-1057	2	<1	-3	41	18	5800	231	10	6.0	0.5	0.8	99	58.05
0953	601014.92	5311085.65	99-JJ-1058	<1	<1	-3	24	15	7897	103	8	6.6	-0.3	0.4	80	28.83
0954	600230.00	5311350.00	99-JJ-1059	<1	2	-3	34	22	8918	128	10	5.5	-0.3	0.3	113	53.61
0955	600179.70	5310901.00	99-JJ-1061	1	2	-3	28	11	3809	75	8	1.7	-0.3	0.7	79	67.17
0956	599562.00	5311120.00	99-JJ-1062	7	1	-3	49	18	23728	996	11	18.8	0.4	0.9	112	50.18
0957	599716.41	5311511.74	99-JJ-1063	2	1	-3	29	12	6075	212	7	6.1	0.6	1.0	104	56.98
0958	599390.79	5312426.47	99-JJ-1064	2	2	-3	56	12	3948	57	14	6.8	-0.3	0.4	51	55.2
0959	598709.56	5312841.99	99-JJ-1065	3	3	-3	113	13	4016	32	18	12.5	1.2	1.1	81	53.86
0960	600033.00	5313320.00	99-JJ-1066	2	<1	-3	91	26	6252	126	16	6.7	-0.3	0.8	108	50.93
0961	601778.00	5312100.00	99-JJ-1067	2	<1	-3	48	15	4318	67	16	5.9	-0.3	0.5	109	55
0962	602829.33	5312183.27	99-JJ-1068	2	<1	-3	25	14	7518	137	11	8.2	-0.3	0.8	96	59.02
0963	602504.00	5311260.00	99-JJ-1069	2	2	-3	20	14	5907	161	13	16.0	-0.3	0.6	109	48.39
0964	602368.00	5311520.00	99-JJ-1071	2	2	-5	50	17	3956	68	19	4.9	0.7	0.5	159	64.59
0965	601700.00	5312170.00	99-JJ-1072	1	1	4	32	16	4128	62	14	3.8	0.8	2.0	108	53.75
0967	600511.48	5312045.43	99-JJ-1074	1	1	5	40	5	2829	33	11	10.9	11.7	1.7	81	52.81
0968	601269.56	5309694.36	99-JJ-1075	2	<1	-3	17	<4	3240	50	8	12.3	-0.3	0.8	65	50.06
0969	600829.06	5309164.42	99-JJ-1076	2	<1	-3	32	11	6750	61	12	7.1	0.4	1.0	78	39.85
0970	602663.60	5309988.65	99-JJ-1077	2	2	-3	20	13	7169	140	13	16.5	-0.3	0.8	80	40.44
0971	602288.43	5310061.28	99-JJ-1078	2	<1	-3	25	8	4383	77	10	4.8	-0.3	0.6	79	58.93
0972	601884.22	5310098.38	99-JJ-1079	2	2	-3	24	6	3564	67	11	9.6	0.6	0.9	67	45.55
0973	601943.35	5309808.44	99-JJ-1081	2	<1	-3	29	10	7687	149	13	6.4	-0.3	0.8	86	50.83
0974	602413.00	5308900.00	99-JJ-1082	1	<1	-3	27	13	10402	184	12	4.0	0.3	1.0	74	36.59
0975	602922.91	5310718.78	99-JJ-1083	1	1	-3	19	9	2837	30	11	8.7	-0.3	0.6	69	42.84

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method-------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units-------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
0976	603475.00	5311320.00	99-JJ-1084	2	5	-3	17	11	5653	67	16	15.9	-0.3	0.7	121	38.46
0977	604184.99	5310336.32	99-JJ-1085	1	2	-3	24	13	5602	86	13	6.3	-0.3	0.7	81	49.24
0978	603977.19	5311340.10	99-JJ-1086	2	1	-3	26	7	6337	95	11	4.4	-0.3	0.6	104	66.42
0979	611551.62	5313533.57	99-JJ-1087	<1	2	-3	26	13	6324	84	14	6.3	0.3	0.8	94	32.64
0980	610573.75	5313177.03	99-JJ-1088	2	6	-3	19	21	7119	106	16	12.3	-0.3	0.6	99	34.6
0981	608706.00	5313460.00	99-JJ-1089	6	2	-3	31	15	13828	310	11	34.1	-0.3	0.5	161	58.45
0982	608539.00	5314140.00	99-JJ-1091	2	<1	-3	27	15	5429	68	19	6.1	-0.3	0.9	120	48.21
0983	607584.00	5313160.00	99-JJ-1092	3	<1	-3	17	15	7832	287	12	4.9	-0.3	1.0	122	30.96
0984	606856.00	5313130.00	99-JJ-1093	2	<1	-3	48	14	8363	328	11	3.5	-0.3	0.8	166	35.08
0985	606856.00	5313600.00	99-JJ-1094	3	<1	-3	29	12	7883	60	15	6.5	-0.3	0.6	104	62.01
0986	605965.97	5313827.23	99-JJ-1095	2	<1	-3	31	12	9814	94	13	7.7	0.7	1.3	97	61.87
0987	603955.11	5313081.88	99-JJ-1096	1	<1	-3	16	<4	2777	144	8	4.2	-0.3	-0.3	112	60.7
0988	601232.49	5312866.03	99-JJ-1097	3	3	-3	23	13	11024	251	12	25.0	-0.3	0.4	140	40.34
0989	598012.98	5312938.05	99-JJ-1098	4	<1	-3	118	8	2809	25	12	9.4	3.3	1.3	70	57.36
0991	604770.67	5312621.13	99-JJ-1101	2	<1	-3	20	7	3970	71	10	4.5	-0.3	0.6	120	39.95
0992	605826.24	5312604.52	99-JJ-1102	3	2	-3	40	17	11033	191	10	11.8	-0.3	0.7	78	54.75
0993	605482.75	5312058.19	99-JJ-1103	2	1	-3	28	21	14154	238	13	5.2	-0.3	0.7	155	45.03
0994	606000.01	5311937.40	99-JJ-1104	2	<1	-3	16	9	5758	156	10	10.6	-0.3	0.7	90	38.68
0995	605619.46	5310823.17	99-JJ-1105	<1	<1	-3	11	10	4295	62	10	5.0	0.5	0.9	74	37.15
0996	606175.37	5309815.26	99-JJ-1106	1	3	-3	15	7	3833	56	11	4.8	-0.3	0.7	73	40.32
0997	605901.15	5309464.84	99-JJ-1107	2	1	-3	21	10	12786	113	12	6.5	-0.3	0.6	100	57.1
0998	605826.38	5309078.33	99-JJ-1108	1	3	-3	20	10	6750	84	12	3.5	-0.3	0.6	99	47.95
0999	607606.80	5309239.00	99-JJ-1109	1	1	-3	15	11	9681	278	10	6.1	-0.3	0.6	94	56.18
1000	607038.99	5308815.21	99-JJ-1111	2	<1	-3	14	11	8801	88	12	7.3	-0.3	0.5	80	52.5
1001	607041.57	5309213.16	99-JJ-1112	1	<1	-3	20	12	7577	92	18	3.4	1.0	-0.3	96	46.82
1003	607939.15	5310528.32	99-JJ-1114	2	2	-3	20	11	5825	68	11	6.0	-0.3	0.6	65	46.41
1004	608487.00	5310351.40	99-JJ-1115	<1	<1	-3	18	10	4387	94	11	5.2	0.5	0.6	87	40.71
1005	608448.00	5310900.00	99-JJ-1116	n/a	n/a	n/a	30	23	5021	64	25	15.3	n/a	n/a	102	37.16
1006	608023.00	5311140.00	99-JJ-1117	3	3	-3	34	17	8829	136	11	10.1	0.7	0.8	154	54.56
1007	607595.49	5310876.95	99-JJ-1118	1	<1	-3	10	6	3595	39	9	9.4	-0.3	0.5	48	36.41
1008	608467.23	5311800.49	99-JJ-1119	2	1	-3	32	10	5050	37	15	5.6	-0.3	0.6	100	50.64
1009	607999.56	5311631.65	99-JJ-1121	<1	3	-3	30	11	6764	72	10	5.3	0.3	0.6	106	44.52
1010	607081.82	5311858.48	99-JJ-1122	2	<1	-3	40	10	3615	23	11	5.1	-0.3	0.6	92	43.91
1011	607111.99	5312748.51	99-JJ-1123	2	2	-3	20	5	3097	36	14	9.5	-0.3	0.5	68	40.72
1012	610012.18	5313523.95	99-JJ-1124	1	<1	-3	27	10	4134	44	17	4.6	-0.3	0.8	60	36.88
1013	609945.03	5313910.33	99-JJ-1125	<1	3	3	46	14	5052	68	12	5.5	0.5	0.9	120	46.57
1014	609213.84	5313734.86	99-JJ-1126	<1	<1	-3	10	9	4061	43	8	8.0	-0.3	0.7	43	25.35
1015	611181.73	5314379.94	99-JJ-1127	<1	1	-3	27	5	2501	31	10	8.8	-0.3	0.6	59	37.2
1016	611595.80	5312488.03	99-JJ-1128	2	<1	-3	15	5	2846	39	12	9.9	-0.3	0.4	56	38.23
1017	612011.00	5311260.00	99-JJ-1129	2	<1	-3	19	16	5291	78	14	6.1	-0.3	0.5	98	36.64
1019	610885.33	5311781.02	99-JJ-1132	2	<1	-3	23	13	8309	170	9	6.6	-0.3	0.6	97	44.86
1020	610548.50	5312142.09	99-JJ-1133	2	<1	-3	18	11	3490	44	10	11.5	-0.3	0.4	86	35.57
1021	608948.00	5310050.00	99-JJ-1134	3	<1	-3	27	20	10622	113	14	8.4	-0.3	0.6	95	53.76
1022	612373.89	5309805.07	99-JJ-1135	3	<1	3	11	11	4756	75	9	19.1	1.7	0.7	53	56.87
1023	611882.53	5310837.92	99-JJ-1136	2	<1	-3	15	6	2928	52	<5	14.3	-0.3	0.6	31	87.28
1024	614887.00	5314426.00	99-JJ-1137	3	7	11	27	17	6408	121	16	20.4	-0.3	0.7	96	43.33
1026	622381.21	5324118.47	99-JJ-1139	1	<1	-3	17	13	2423	29	16	5.9	-0.3	0.6	59	50.56
1027	621988.00	5324040.00	99-JJ-1141	2	1	-3	25	22	3081	112	13	5.4	0.4	0.6	84	57.14
1028	626829.09	5326087.69	99-JJ-1142	12	1	-3	31	17	4289	46	17	12.7	1.5	1.4	107	39.28
1029	629494.00	5329490.00	99-JJ-1143	2	<1	-3	15	13	2796	32	10	10.1	-0.3	0.6	34	45.58
1030	633725.00	5331840.00	99-JJ-1144	1	<1	-3	10	11	3522	52	9	5.1	-0.3	0.5	41	38.93
1031	634786.00	5335280.00	99-JJ-1145	2	2	-3	21	20	11165	88	12	6.8	-0.3	0.5	69	54.4
1032	635036.94	5336542.29	99-JJ-1146	1	1	-3	20	13	3405	41	16	6.0	-0.3	0.5	69	52.78
1033	638683.00	5338280.00	99-JJ-1147	2	1	-3	94	15	2963	41	27	4.2	0.5	0.8	78	49.5
1034	638475.57	5338695.90	99-JJ-1148	2	1	-3	76	46	5281	64	30	7.3	0.7	0.8	67	49.46
1035	639312.10	5337936.67	99-JJ-1149	2	<1	-3	121	21	5436	126	20	8.4	2.6	1.3	98	49.23
1036	639684.00	5337520.00	99-JJ-1151	1	1	-3	50	14	2694	37	20	3.3	0.3	0.6	88	51.42
1037	639014.97	5335657.58	99-JJ-1152	2	<1	-3	13	44	5275	50	27	7.5	-0.3	0.3	51	36.65
1038	638807.18	5332745.75	99-JJ-1153	1	1	-3	12	12	2399	21	11	6.9	-0.3	0.5	25	31
1039	640426.82	5333828.71	99-JJ-1154	2	<1	-3	21	18	3727	33	16	7.6	-0.3	0.5	27	34.11
1040	640816.93	5333755.63	99-JJ-1155	2	<1	-3	10	15	4055	40	11	9.2	0.6	0.6	27	34.79

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
1041	641033.00	5332570.00	99-JJ-1156	2	<1	-3	19	14	4921	44	12	6.4	-0.3	0.4	40	49.87
1042	642504.00	5333280.00	99-JJ-1157	2	2	-3	15	12	2050	37	14	2.9	-0.3	0.5	60	57.64
1043	641913.00	5333350.00	99-JJ-1158	1	<1	-4	23	18	4140	69	19	2.4	1.8	1.3	69	50.82
1045	642246.00	5336800.00	99-JJ-1161	7	1	-3	61	34	23759	323	17	5.8	1.2	0.9	150	39.48
1046	641959.05	5336475.87	99-JJ-1162	6	<1	-3	36	25	12360	1134	20	19.0	-0.3	0.8	196	39.78
1047	643307.00	5337430.00	99-JJ-1163	3	2	-3	44	19	5165	107	14	4.5	0.5	0.7	84	40.53
1048	643343.57	5336560.40	99-JJ-1164	2	<1	-3	19	13	3482	39	13	8.4	-0.3	0.5	41	37.06
1049	644490.00	5335600.00	99-JJ-1165	2	<1	-3	16	15	5485	57	10	6.1	-0.3	0.7	41	22.67
1050	645809.50	5335105.44	99-JJ-1166	1	<1	-3	12	13	3736	39	11	6.0	-0.3	0.5	38	30.54
1051	645840.00	5334170.00	99-JJ-1167	2	<1	-3	22	21	5041	65	16	4.9	-0.3	0.5	83	44.65
1052	645309.47	5333828.05	99-JJ-1168	2	<1	-3	14	15	3281	49	17	11.1	-0.3	0.4	72	42.02
1053	644761.99	5333582.38	99-JJ-1169	2	2	-3	15	14	3158	38	17	8.1	-0.3	0.6	58	46.7
1054	644696.64	5332453.49	99-JJ-1171	1	2	-3	12	7	2261	29	11	6.1	-0.3	0.4	31	46.61
1055	643049.13	5331177.51	99-JJ-1172	2	<1	-3	18	18	4313	61	14	7.8	-0.3	0.7	91	46
1056	641215.00	5331380.00	99-JJ-1173	1	1	-3	15	18	4928	85	11	5.5	-0.3	0.6	43	38.71
1057	640383.63	5331008.21	99-JJ-1174	2	<1	-3	18	20	4367	53	21	7.7	-0.3	0.7	79	45.53
1058	639423.91	5330543.42	99-JJ-1175	1	<1	-3	12	5	1668	30	9	3.2	-0.3	0.4	32	48.36
1059	640736.82	5330119.67	99-JJ-1176	3	<1	-3	11	16	8027	153	13	20.7	-0.3	0.6	94	37.36
1060	639992.78	5330124.90	99-JJ-1177	<1	<1	-3	24	11	3370	44	14	3.2	-0.3	0.5	110	54.27
1061	640777.66	5329730.31	99-JJ-1178	2	<1	-3	24	10	5778	46	11	5.0	0.3	0.6	79	50.16
1062	640311.58	5329260.87	99-JJ-1179	1	<1	-3	16	15	5377	74	12	6.5	-0.3	0.5	69	45.57
1063	639972.00	5329500.00	99-JJ-1181	2	<1	-3	21	20	5318	88	15	5.1	-0.3	0.5	88	50.13
1064	639598.12	5328301.81	99-JJ-1182	1	<1	-3	9	15	5556	66	12	9.8	-0.3	0.5	75	30.98
1065	639134.47	5328593.54	99-JJ-1183	2	1	-3	13	14	3415	37	13	8.3	-0.3	0.7	85	42.07
1066	638425.00	5329060.00	99-JJ-1184	2	<1	-3	16	18	5952	229	9	5.5	-0.3	0.6	65	38.54
1067	637489.90	5329329.92	99-JJ-1185	1	<1	-3	15	24	6247	107	20	13.5	-0.3	0.6	98	41.66
1068	636245.85	5329592.19	99-JJ-1186	1	2	-3	21	20	3554	35	15	6.2	-0.3	0.6	24	39.37
1069	637180.11	5328295.87	99-JJ-1187	2	3	-3	26	17	8792	108	13	4.7	-0.3	0.3	115	51.15
1070	636888.46	5327825.53	99-JJ-1188	1	<1	-3	9	13	5832	70	10	6.1	-0.3	0.6	62	26.28
1071	637178.63	5327138.92	99-JJ-1189	1	<1	-3	13	13	2408	33	12	5.3	-0.3	-0.3	48	48.15
1072	636954.00	5326620.00	99-JJ-1191	1	2	-3	23	13	3584	58	14	4.6	-0.3	0.4	72	44.02
1073	634157.46	5325995.59	99-JJ-1192	1	2	-3	27	19	3017	29	21	5.5	-0.3	0.6	46	52.07
1074	631457.48	5324585.39	99-JJ-1193	1	<1	-3	23	17	2548	31	19	7.2	-0.3	0.5	80	44.01
1075	626335.37	5320257.91	99-JJ-1194	2	<1	-3	12	15	5227	50	15	9.9	-0.3	0.4	99	26.76
1077	623966.52	5317990.32	99-JJ-1196	2	1	-3	14	19	9308	116	10	16.2	-0.3	0.5	95	55.81
1078	624782.05	5318245.94	99-JJ-1197	4	<1	-4	29	17	4976	52	22	16.6	1.9	1.1	140	46.61
1079	625935.21	5318708.32	99-JJ-1198	1	1	-3	15	10	2822	29	9	9.0	-0.3	0.3	43	49.32
1080	627326.00	5318890.00	99-JJ-1199	<1	3	-3	18	16	6271	63	9	8.6	-0.3	0.5	59	37.66
1081	629168.99	5317477.32	99-JJ-1201	3	3	-3	47	39	6244	69	54	5.6	-0.3	0.4	126	40.68
1082	630516.60	5318607.36	99-JJ-1202	3	3	4	38	25	7563	107	34	11.9	-0.3	0.5	94	39.27
1083	635256.00	5319400.00	99-JJ-1203	1	<1	-3	31	19	4795	71	22	6.1	0.3	0.6	77	41.44
1084	637094.76	5319131.60	99-JJ-1204	<1	<1	4	14	45	6753	88	22	6.1	-0.3	0.6	52	37.16
1085	638274.55	5318898.74	99-JJ-1205	<1	<1	-3	18	26	6289	93	11	7.5	-0.3	0.5	41	40.2
1086	637834.24	5319980.68	99-JJ-1206	<1	<1	-3	17	52	8579	90	25	8.3	-0.3	0.7	47	42.01
1087	639734.69	5319967.27	99-JJ-1207	1	<1	-3	25	39	5172	74	23	5.8	-0.3	0.6	53	40.54
1088	639239.54	5319977.33	99-JJ-1208	<1	<1	-3	11	18	3217	39	11	7.9	-0.3	0.4	28	37.96
1089	641594.00	5318710.00	99-JJ-1209	1	2	-3	35	114	18161	414	49	7.6	-0.3	0.6	92	41.65
1090	641653.08	5319590.87	99-JJ-1211	1	2	-3	82	79	19623	141	32	9.0	0.4	1.0	77	59.19
1091	645203.00	5318080.00	99-JJ-1212	1	<1	-3	16	11	4484	44	10	6.0	-0.3	0.4	43	36.07
1092	649407.63	5317603.25	99-JJ-1213	2	3	-3	31	17	7942	88	10	10.2	-0.3	0.4	76	52.07
1093	649058.43	5318275.18	99-JJ-1214	2	3	-3	17	12	3450	39	13	8.6	-0.3	0.5	59	35.07
1094	648516.64	5318984.53	99-JJ-1215	2	<1	-3	31	15	7004	59	12	11.0	-0.3	0.4	92	52.83
1095	648387.91	5318818.54	99-JJ-1216	1	<1	-3	23	14	3397	38	10	5.8	-0.3	0.5	47	43.82
1096	647932.00	5318650.00	99-JJ-1217	2	2	-3	28	22	6685	75	14	5.6	-0.3	0.5	96	51.42
1097	647429.76	5318729.07	99-JJ-1218	2	<1	-3	25	27	12601	245	13	8.2	-0.3	0.5	66	47.93
1098	646510.63	5318694.32	99-JJ-1219	<1	<1	-3	17	20	5961	77	11	6.4	-0.3	0.4	57	43.54
1099	645971.92	5318678.81	99-JJ-1221	4	2	-3	33	20	4268	48	29	8.5	0.4	0.8	79	43.54
1100	648129.00	5320000.00	99-JJ-1222	2	<1	-3	30	24	9479	123	13	8.2	-0.3	0.5	62	54.19
1101	647590.94	5319820.11	99-JJ-1223	2	1	-3	16	19	4655	52	17	12.8	-0.3	0.6	73	28.47
1102	647903.05	5320706.38	99-JJ-1224	<1	<1	-3	16	10	3125	38	7	5.2	-0.3	0.5	41	37.64
1103	646913.33	5320670.11	99-JJ-1225	<1	<1	-3	9	18	4334	51	11	4.1	-0.3	-0.3	59	28.42

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------>	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS-FA	ICP-MS-FA	ICP-OES	GRAV.
		UTM	Units--------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
1104	646725.05	5321017.96	99-JJ-1226	1	<1	-3	12	16	5561	63	12	4.7	-0.3	0.4	84	24.67
1105	646323.14	5321291.73	99-JJ-1227	2	<1	-4	23	13	4221	52	14	4.7	-0.4	-0.4	107	52.87
1106	645862.64	5321123.97	99-JJ-1228	2	1	-3	14	10	2919	38	12	10.6	-0.3	-0.3	70	44.15
1107	646552.00	5322380.00	99-JJ-1229	2	<1	-7	37	25	6445	85	12	8.0	-0.7	1.1	85	56.03
1108	646113.00	5322360.00	99-JJ-1231	1	2	-3	23	18	7570	75	11	5.7	-0.3	-0.3	66	48.5
1109	647007.00	5322920.00	99-JJ-1232	2	1	-3	21	18	6182	85	18	9.0	-0.3	0.3	106	34.95
1110	648087.88	5323749.40	99-JJ-1233	2	<1	-3	12	10	2732	30	9	8.4	-0.3	-0.3	36	48.28
1111	648923.08	5324542.27	99-JJ-1234	3	1	-3	11	9	2853	39	9	18.7	-0.3	-0.3	60	40.96
1112	648271.41	5324776.91	99-JJ-1235	1	<1	-3	18	24	7106	73	21	4.6	-0.3	-0.3	39	42.29
1113	647317.28	5325588.28	99-JJ-1236	1	<1	-4	17	<4	55	2	19	5.4	-0.4	-0.4	<2	41.08
1114	646478.82	5324351.44	99-JJ-1237	<1	<1	-3	10	15	6667	78	12	8.1	-0.3	-0.3	59	24.9
1115	646207.80	5324530.31	99-JJ-1238	2	<1	-3	12	14	5153	56	12	7.4	-0.3	0.3	51	38.61
1116	645631.86	5323389.59	99-JJ-1239	<1	<1	-3	12	22	7041	71	13	5.7	-0.3	-0.3	60	30.94
1117	643982.64	5327802.71	99-JJ-1241	2	1	-3	12	14	3126	37	14	7.3	-0.3	-0.3	58	38.99
1118	641501.22	5328225.05	99-JJ-1242	2	<1	-3	16	12	4768	83	10	8.6	-0.3	-0.3	56	41.96
1119	640624.00	5327380.00	99-JJ-1243	1	<1	-3	17	18	5384	79	12	5.9	0.4	0.3	54	40.89
1120	638941.00	5327530.00	99-JJ-1244	1	<1	-3	15	17	6111	64	13	5.7	-0.3	0.3	74	37.96
1121	638046.00	5327260.00	99-JJ-1245	1	<1	-3	24	16	4954	61	15	5.5	-0.3	-0.3	123	52.85
1122	632731.87	5323960.58	99-JJ-1246	2	2	-3	32	44	9115	144	25	6.7	0.3	0.7	100	54.85
1123	632330.00	5323860.00	99-JJ-1247	4	<1	-3	35	24	9010	100	21	6.8	0.4	0.6	97	52.39
1124	628145.00	5320540.00	99-JJ-1248	4	1	-3	24	20	8118	131	21	30.4	-0.3	0.5	100	43.6
1125	627856.00	5320340.00	99-JJ-1249	2	<1	-3	33	18	4912	76	18	7.7	-0.3	0.4	78	44.48
1126	622945.06	5317277.29	99-JJ-1251	1	<1	-3	9	10	3458	34	8	11.1	-0.3	0.5	38	28.27
1127	618860.93	5316269.08	99-JJ-1252	2	<1	-3	12	11	3402	34	11	16.6	-0.3	0.4	59	44.08
1128	621098.45	5314276.52	99-JJ-1253	<1	3	-3	31	16	6492	113	15	6.3	-0.3	0.5	91	39.93
1129	624157.00	5315280.00	99-JJ-1254	2	<1	-3	20	22	11699	128	11	11.1	-0.3	0.4	98	43.74
1130	626732.97	5316204.74	99-JJ-1255	5	<1	-3	19	25	8215	192	17	12.8	0.3	0.6	118	37.8
1131	629342.00	5315730.00	99-JJ-1256	4	<1	-3	49	37	13286	301	51	3.7	0.5	0.6	132	14.53
1132	631094.85	5315855.57	99-JJ-1257	3	3	-3	245	17	6846	82	32	3.6	0.7	0.4	105	44.95
1133	631504.04	5315331.77	99-JJ-1258	7	2	-3	101	48	14563	203	41	14.5	0.6	0.8	158	38.77
1134	633118.00	5314890.00	99-JJ-1259	2	3	-3	72	48	38766	656	40	16.6	1.0	1.1	176	53.73
1135	635347.00	5314720.00	99-JJ-1261	36	2	-3	111	44	14074	315	28	8.0	1.2	1.1	165	57.19
1136	635818.61	5314709.86	99-JJ-1262	9	2	-3	78	117	12049	182	71	13.3	1.0	1.3	124	42.34
1137	635953.94	5315223.86	99-JJ-1263	28	4	-3	142	85	26230	270	32	8.9	1.7	1.4	123	53.64
1138	636236.78	5314622.33	99-JJ-1264	11	<1	-3	70	31	4659	49	28	9.6	0.7	0.8	68	51.46
1139	637396.50	5315141.30	99-JJ-1265	12	6	5	146	93	10887	178	74	22.0	1.5	1.4	139	48.02
1140	638259.39	5314930.11	99-JJ-1266	2	1	-3	27	17	3586	65	11	8.0	-0.3	0.5	44	39.53
1141	639857.47	5315968.56	99-JJ-1267	<1	<1	-3	30	22	4290	69	12	4.7	-0.3	0.4	43	40.25
1143	643303.98	5316375.93	99-JJ-1269	1	<1	-3	8	21	5307	57	10	11.1	-0.3	0.6	36	21.31
1144	643514.35	5315533.38	99-JJ-1271	1	<1	-3	19	36	4533	40	17	8.2	0.3	0.3	30	34.14
1145	644810.68	5315917.45	99-JJ-1272	<1	<1	-3	20	10	2319	25	6	4.2	-0.3	0.5	21	35.14
1146	644971.55	5315517.49	99-JJ-1273	2	2	-3	54	15	12735	85	10	7.4	-0.3	0.4	79	60.68
1147	646249.00	5315660.00	99-JJ-1274	5	<1	-3	17	52	12329	112	36	19.4	-0.3	0.7	143	44.09
1148	646737.35	5315638.93	99-JJ-1275	2	<1	-3	13	16	3984	35	12	10.5	0.4	0.4	52	29.29
1149	647583.75	5315533.94	99-JJ-1276	2	1	-3	21	37	5385	42	22	9.7	-0.3	0.6	70	36.99
1150	648052.29	5316764.69	99-JJ-1277	4	<1	-3	25	20	23963	117	10	23.5	-0.3	0.6	93	59.34
1151	645831.97	5316222.48	99-JJ-1278	4	<1	-3	28.9	13	4026	28	14	25.8	-0.3	0.6	43	48.12
1152	645430.00	5317160.00	99-JJ-1279	2	<1	-3	18	12	4466	42	11	8.0	-0.3	0.4	55	36.92
1153	644778.45	5317182.45	99-JJ-1281	2	1	-3	19	17	3314	33	8	10.2	-0.3	0.4	33	37.22
1154	640472.00	5317830.00	99-JJ-1282	3	3	-3	30	29	5168	81	24	15.1	-0.3	0.4	78	45.13
1155	640831.29	5316471.75	99-JJ-1283	2	<1	-3	17	25	4488	33	18	10.0	0.3	-0.3	32	44.01
1156	640359.35	5316653.29	99-JJ-1284	2	2	-3	35	69	6198	71	38	4.2	0.4	0.4	66	40.64
1157	639653.00	5316750.00	99-JJ-1285	3	<1	-3	23	30	7762	160	18	16.5	-0.3	0.5	93	39.21
1158	638834.00	5317540.00	99-JJ-1286	2	<1	-3	51	26	12589	90	13	9.1	-0.3	-0.3	97	49.83
1160	638342.03	5316971.20	99-JJ-1288	1	4	-3	13	17	4087	62	9	5.9	-0.3	-0.3	41	47.01
1161	638112.72	5316041.70	99-JJ-1289	3	<1	-3	16	18	4234	50	15	15.7	-0.3	0.4	99	43.55
1162	638590.44	5316014.55	99-JJ-1291	3	<1	-3	18	13	2655	49	18	22.4	0.6	1.3	81	48.02
1163	637955.00	5316840.00	99-JJ-1292	3	1	8	11	13	3782	38	11	14.4	0.6	0.4	48	38.29
1164	636348.00	5317510.00	99-JJ-1293	4	2	-3	27	50	16316	334	32	9.1	-0.3	0.4	145	25.15
1165	636548.81	5316592.58	99-JJ-1294	160	14	6	147	86	16247	394	64	9.6	3.7	1.3	254	56.01
1166	636732.46	5315923.22	99-JJ-1295	280	2	3	66	64	14082	184	48	7.2	1.0	0.6	123	53.82

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units----------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
1167	637248.04	531[illegible]49.51	99-JJ-1296	3	4	4	47	58	8749	124	45	10.6	0.9	0.5	107	40.79
1168	635821.74	5317443.09	99-JJ-1297	30	3	-3	45	32	8918	179	24	10.2	0.7	0.5	87	56.88
1169	636143.15	5316822.06	99-JJ-1298	39	14	3	42	88	7645	76	54	12.5	1.1	0.6	88	46.17
1170	635624.20	5316956.62	99-JJ-1299	6	3	-3	73	101	9768	100	48	6.5	0.4	0.7	96	45.86
1171	635085.00	5317938.00	99-JJ-1301	39	2	-3	60	49	6380	71	43	10.6	0.8	0.6	141	45.5
1172	634068.08	5316816.20	99-JJ-1302	3	3	36	41	16	6978	127	26	15.5	-0.3	0.3	124	44.05
1173	632371.77	5317275.70	99-JJ-1303	3	2	-3	20	17	3483	41	17	21.3	-0.3	0.4	76	50.52
1174	631971.56	5315402.30	99-JJ-1304	23	<1	3	96	65	10465	124	115	14.9	1.6	1.2	185	38.35
1175	631918.49	5315714.25	99-JJ-1305	5	5	-3	35	18	4105	45	25	32.4	-0.3	0.6	130	43.19
1176	627766.00	5316230.00	99-JJ-1306	3	2	-3	46	28	13658	155	21	9.8	-0.3	0.6	140	52.75
1177	624930.00	5315480.00	99-JJ-1307	2	<1	-3	30	19	5297	93	14	11.7	-0.3	0.4	99	48.15
1178	621245.00	5315400.00	99-JJ-1308	2	2	-3	9	13	8306	78	8	15.3	-0.3	0.5	62	20.72
1179	622759.26	5315459.15	99-JJ-1309	2	2	-3	14	12	4949	52	9	12.4	-0.3	0.4	71	34.37
1180	623172.73	5314873.95	99-JJ-1311	3	<1	-3	23	17	8451	100	11	16.2	-0.3	0.4	111	47.61
1181	623493.22	5314690.14	99-JJ-1312	4	4	-3	15	16	6564	74	10	24.5	-0.3	0.5	78	38.77
1182	623900.03	5314339.37	99-JJ-1313	4	<1	4	21	22	8160	95	14	28.8	-0.3	0.5	101	26.97
1183	624399.00	5317720.00	99-JJ-1314	8	5	-3	27	14	3133	32	19	21.3	-0.3	0.4	144	43.85
1184	630284.26	5317679.33	99-JJ-1315	6	2	-3	42	31	6566	83	32	8.2	0.6	0.6	143	48.1
1185	630615.20	5318063.30	99-JJ-1316	4	5	-3	27	24	6954	108	25	15.5	-0.3	0.4	81	44.6
1186	635878.00	5318040.00	99-JJ-1317	8	<1	-3	65	96	10856	90	42	6.4	0.7	0.6	87	48.01
1187	638245.59	5318125.26	99-JJ-1318	2	<1	-3	12	42	6917	62	22	14.7	-0.3	0.4	60	26.1
1188	639049.65	5317715.98	99-JJ-1319	3	1	-3	12	24	8535	66	13	21.5	-0.3	-0.3	62	29.84
1189	638828.46	5317542.47	99-JJ-1321	2	<1	-3	33	23	12754	83	13	8.9	-0.3	0.4	83	52.61
1190	639623.00	5318210.00	99-JJ-1322	<1	<1	-3	33	37	6510	69	17	7.5	-0.3	0.5	70	47.33
1191	640138.00	5318160.00	99-JJ-1323	<1	<1	-3	27	80	6767	104	38	9.2	-0.3	0.7	89	27.02
1192	641128.79	5319285.00	99-JJ-1324	2	2	-3	38	24	13128	278	14	8.5	0.4	0.6	137	57.49
1193	640772.26	5319920.16	99-JJ-1325	2	<1	-3	8	17	2603	30	7	15.6	-0.3	0.7	32	41.29
1194	640843.59	5319350.90	99-JJ-1326	2	<1	-3	12	14	3124	45	10	10.5	0.6	0.5	49	42.18
1195	641761.71	5319709.31	99-JJ-1327	4	2	-3	23	36	5232	59	27	18.8	0.3	0.6	78	38.07
1196	643706.57	5320102.02	99-JJ-1328	2	<1	-3	67	64	4501	49	49	10.7	2.6	1.7	72	36.03
1197	644340.19	5320033.35	99-JJ-1329	3	<1	-3	19	32	6791	61	30	20.0	0.4	0.8	118	36.19
1198	642578.47	5320665.98	99-JJ-1331	2	<1	-3	12	20	6182	76	13	12.3	-0.3	0.5	78	33.06
1199	643581.01	5321742.87	99-JJ-1332	<1	<1	-3	15	22	9690	107	12	12.3	-0.3	0.5	58	23.07
1200	642971.26	5321635.32	99-JJ-1333	2	<1	-3	23	18	4160	39	17	6.4	0.3	0.5	91	36.64
1201	642595.00	5322480.00	99-JJ-1334	2	2	-3	25	20	9095	63	10	5.8	-0.3	0.3	84	55.1
1202	642094.00	5322850.00	99-JJ-1335	1	<1	-3	13	25	4764	59	14	5.8	-0.3	0.4	51	33.31
1203	642284.25	5325841.00	99-JJ-1336	2	<1	-3	10	10	3323	47	8	14.2	-0.3	0.4	67	39.87
1204	642284.87	5325087.30	99-JJ-1337	1	1	-3	8	9	1904	28	7	8.5	-0.3	0.5	44	44.97
1205	642307.00	5324450.00	99-JJ-1338	1	<1	-3	11	18	5197	52	14	15.3	-0.3	0.5	123	35.17
1206	641994.25	5323770.96	99-JJ-1339	1	<1	-3	16	16	4815	52	11	4.3	-0.3	0.4	86	45.54
1207	642531.47	5323521.45	99-JJ-1341	1	<1	-3	9	12	3592	37	8	6.4	-0.3	0.5	63	34.69
1208	642940.64	5323200.39	99-JJ-1342	2	<1	-3	16	12	3529	33	11	5.9	-0.3	0.4	55	46.11
1209	639850.13	5326668.67	99-JJ-1343	2	2	-3	16	12	3377	48	13	11.2	-0.3	0.4	84	41.91
1210	638348.91	5326773.82	99-JJ-1344	2	<1	-3	10	10	3259	40	11	11.0	-0.3	0.5	78	40.98
1212	638479.31	5324522.98	99-JJ-1346	1	3	-3	11	11	2812	25	8	9.5	-0.3	0.5	26	47.78
1213	638841.56	5325620.96	99-JJ-1347	1	1	-3	22	27	5898	54	19	5.4	0.5	0.8	160	44.75
1214	638099.76	5325650.96	99-JJ-1348	3	1	-3	7	12	3590	60	8	6.3	-0.3	0.4	45	31.01
1215	637299.25	5325235.05	99-JJ-1349	2	<1	-3	10	17	7282	157	11	22.9	-0.3	0.4	104	33.11
1216	636327.22	5325212.02	99-JJ-1351	1	1	-3	21	22	3717	44	15	3.3	-0.3	-0.3	100	47.04
1217	635528.21	5324575.36	99-JJ-1352	2	<1	-3	51	193	14762	352	85	5.6	0.7	0.8	131	45.74
1218	640487.00	5326180.00	99-JJ-1353	<1	2	-3	13	13	2928	39	12	3.7	-0.3	0.4	50	43.14
1219	639729.00	5325610.00	99-JJ-1354	1	<1	7	17	17	3951	47	9	5.7	-0.3	0.5	121	50.21
1220	623026.02	5316384.62	99-JJ-1355	2	<1	-3	9	10	3648	38	8	15.3	-0.3	-0.3	50	42.46
1221	624235.87	5316711.88	99-JJ-1356	3	1	-3	19	16	7038	75	7	17.3	-0.3	-0.3	99	64.27
1222	626092.51	5316360.08	99-JJ-1357	4	<1	-3	16	23	7568	98	11	10.7	-0.3	0.4	73	40.59
1223	627084.05	5316448.41	99-JJ-1358	2	<1	-3	22	18	5978	52	11	11.1	-0.3	-0.3	105	65.77
1224	627562.36	5318589.02	99-JJ-1359	3	<1	-3	11	13	5601	56	8	13.6	-0.3	0.4	63	38.86
1225	627945.10	5318742.22	99-JJ-1361	3	2	-3	51	55	9475	125	50	12.6	-0.3	0.8	141	39.32
1226	628891.13	5318463.23	99-JJ-1362	1	2	-3	38	27	6321	83	41	4.7	-0.3	0.7	90	32.56
1228	630072.15	5318424.63	99-JJ-1364	3	<1	-3	21	32	7276	81	38	11.3	-0.3	0.8	114	28.12
1230	629775.39	5319856.31	99-JJ-1366	2	<1	-3	38	88	11780	115	86	9.1	-0.3	0.9	123	33.75

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method----------->	INAA	INAA	ICP-MS-FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS-FA	ICP-MS-FA	ICP-OES	GRAV.
		UTM	Units------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
1231	629661.71	5320388.63	99-JJ-1367	1	<1	-3	18	21	6468	97	14	8.3	-0.3	0.5	92	28.93
1232	630641.52	5320231.28	99-JJ-1368	2	<1	-3	32	18	5294	78	19	4.5	0.5	0.9	97	35.61
1233	630810.14	5319194.99	99-JJ-1369	5	4	5	44	66	13088	247	88	26.3	0.7	1.7	169	40.23
1234	630772.07	5319674.31	99-JJ-1371	3	1	-3	71	64	8415	130	115	14.4	0.8	1.2	143	43.56
1235	634600.50	5319562.37	99-JJ-1372	6	6	-3	66	19	7352	94	23	17.9	0.8	0.7	144	51.73
1237	635147.35	5321874.85	99-JJ-1374	2	<1	-3	12	21	5074	67	13	9.2	-0.3	0.6	89	30.81
1238	634444.87	5322372.39	99-JJ-1375	2	<1	-3	17	15	3205	34	16	13.6	-0.3	0.5	81	50.3
1239	635944.71	5322059.25	99-JJ-1376	2	<1	-3	9	22	8566	72	9	12.4	-0.3	0.5	100	35.46
1240	636105.72	5323101.21	99-JJ-1377	1	<1	-3	19	15	4052	53	13	4.7	-0.3	0.6	75	50.7
1241	637106.00	5322740.00	99-JJ-1378	3	3	-3	23	70	7859	282	33	9.8	-0.3	0.8	112	31.59
1242	637485.00	5322540.00	99-JJ-1379	2	<1	-3	41	68	5592	130	44	6.3	-0.3	0.7	73	50.8
1243	638048.03	5321853.88	99-JJ-1381	1	<1	-3	16	35	4737	59	19	7.6	-0.3	0.5	52	41.9
1244	637621.38	5324533.27	99-JJ-1382	2	1	-3	26	163	9373	105	99	7.6	0.3	0.8	99	55.33
1245	638562.00	5323950.00	99-JJ-1383	2	3	-3	17	15	4569	77	19	13.7	-0.3	1.1	78	44.69
1246	639027.59	5324077.59	99-JJ-1384	2	3	-3	17	16	4194	57	18	10.8	-0.3	0.7	75	42.66
1247	639113.46	5324388.16	99-JJ-1385	1	<1	-3	15	14	3775	52	17	5.9	-0.3	0.5	79	35.84
1248	640094.54	5324140.26	99-JJ-1386	2	<1	-3	16	22	5881	76	18	8.2	-0.3	0.6	96	29.03
1249	640392.34	5324443.69	99-JJ-1387	<1	<1	-3	15	12	3951	48	10	4.7	-0.3	0.5	57	36.47
1250	640806.00	5323830.00	99-JJ-1388	2	3	-3	10	17	5774	88	11	14.0	-0.3	0.6	68	33.47
1251	640435.69	5323515.97	99-JJ-1389	2	2	-3	15	12	2854	32	15	9.1	-0.3	0.4	66	40.16
1252	639911.00	5321560.00	99-JJ-1391	3	2	-3	61	39	11877	129	29	4.2	0.6	1.2	92	21.33
1253	632866.25	5321957.31	99-JJ-1392	6	3	-3	32	32	10280	266	26	16.0	0.5	0.8	182	35.64
1254	622749.16	5317265.40	99-JJ-1393	3	<1	-3	10	10	3498	43	8	15.0	-0.3	0.4	73	36.53
1255	620256.04	5316802.25	99-JJ-1394	2	<1	-3	9	13	5614	58	8	19.5	-0.3	0.9	49	30.94
1256	619333.46	5316867.93	99-JJ-1395	3	2	-3	8	11	4078	34	<5	22.5	-0.3	0.5	45	47.95
1257	622577.63	5314862.23	99-JJ-1396	1	<1	-3	9	12	3876	45	8	12.3	-0.3	0.5	40	30.6
1258	623383.00	5314320.00	99-JJ-1397	3	4	4	47	22	7836	108	15	12.5	-0.3	0.5	158	59.15
1259	623171.00	5314860.00	99-JJ-1398	2	3	-3	18	17	7788	103	8	17.6	-0.3	0.6	94	46.26
1260	623420.26	5315551.59	99-JJ-1399	2	<1	-3	24	14	5223	76	6	19.1	-0.3	0.5	46	54.14
1261	624359.24	5315778.13	99-JJ-1401	2	3	-3	11	9	3581	37	6	24.1	-0.3	0.5	43	55.71
1262	625092.29	5314455.13	99-JJ-1402	2	<1	-3	18	17	7082	91	14	10.8	-0.3	1.4	76	41.17
1263	624885.70	5315044.33	99-JJ-1403	2	<1	-3	29	20	6331	53	10	13.1	-0.3	0.5	50	52.68
1264	625027.29	5315923.17	99-JJ-1404	3	<1	-3	20	17	2433	38	11	21.4	-0.3	0.5	42	62.43
1265	625727.34	5315653.05	99-JJ-1405	2	<1	39	33	50	6449	81	35	6.7	0.6	0.9	117	45.65
1268	626643.00	5315310.00	99-JJ-1408	8	2	-3	58	27	7715	126	27	25.9	0.7	1.0	163	49.14
1269	629555.58	5314597.88	99-JJ-1409	7	3	-3	92	35	7126	83	26	10.2	-0.3	0.6	110	45.86
1270	629832.38	5315285.84	99-JJ-1411	6	<1	-3	87	20	6008	76	24	15.0	-0.3	0.7	142	48.46
1271	630218.93	5316689.36	99-JJ-1412	5	<1	-3	63	17	4588	54	58	12.9	0.4	0.8	97	43.16
1272	630641.60	5316701.92	99-JJ-1413	5	1	4	78	64	8897	154	68	15.8	0.7	0.6	137	46.61
1273	629954.56	5317564.06	99-JJ-1414	6	2	-3	56	24	4602	59	37	8.2	-0.3	0.5	195	50.87
1274	635113.80	5317904.23	99-JJ-1415	41	4	-3	59	51	6486	77	42	10.0	0.8	0.6	139	45.74
1275	634989.22	5318375.48	99-JJ-1416	77	6	4	167	19	4725	143	24	6.2	1.2	0.7	141	59.4
1276	636959.41	5320204.80	99-JJ-1417	3	<1	-3	17	86	7622	63	45	25.9	-0.3	0.6	77	47.33
1278	641131.71	5321871.67	99-JJ-1419	4	<1	-3	19	18	3635	49	13	20.7	-0.3	0.5	64	49.63
1279	639245.67	5321834.73	99-JJ-1421	1	<1	-3	29	26	5599	82	19	5.7	-0.3	-0.3	78	53.36
1280	639041.98	5323523.59	99-JJ-1422	1	<1	-3	16	13	3582	50	18	11.3	-0.3	0.3	41	42.83
1281	638276.36	5322770.03	99-JJ-1423	1	2	-3	14	43	6257	74	25	7.2	-0.3	0.3	76	33.26
1282	632936.00	5323190.00	99-JJ-1424	2	2	-3	22	33	5492	138	16	6.5	-0.3	0.4	77	44.9
1283	631528.51	5323412.40	99-JJ-1425	7	3	-3	30	18	5662	67	24	14.4	-0.3	0.5	105	39.14
1284	630930.66	5323368.39	99-JJ-1426	24	1	-3	57	23	4301	49	46	18.8	0.5	0.7	145	48.82
1286	633081.98	5322298.47	99-JJ-1428	2	2	-3	24	68	13912	173	44	15.9	0.4	0.6	125	32.92
1287	631138.80	5321998.43	99-JJ-1429	4	2	-3	20	17	3629	34	14	11.7	-0.3	0.5	47	46.69
1288	625611.35	5319172.30	99-JJ-1431	2	<1	-3	12	13	4590	42	11	14.3	-0.3	-0.3	57	36.13
1289	625797.65	5319658.85	99-JJ-1432	3	<1	-3	21	17	6298	86	10	8.1	-0.3	0.5	79	53.56
1290	624419.00	5319085.09	99-JJ-1433	2	1	-3	17	13	4337	52	11	9.3	-0.3	-0.3	48	33.24
1291	624035.39	5318952.15	99-JJ-1434	2	<1	-3	9	14	5006	46	10	19.4	-0.3	-0.3	66	38.1
1292	623377.47	5317527.03	99-JJ-1435	2	1	-3	12	15	4545	50	9	17.8	-0.3	0.6	84	35.36
1293	616211.00	5320650.00	99-JJ-1436	9	15	-3	24	21	8174	93	18	7.3	-0.3	0.7	140	33.85
1294	616715.00	5322120.00	99-JJ-1437	8	8	4	32	65	10854	164	45	12.1	1.6	1.1	132	47.02
1296	616469.00	5326710.00	99-JJ-1439	3	2	-3	33	20	8918	105	31	4.2	0.6	0.4	96	34.15
1297	618001.00	5331750.00	99-JJ-1441	4	3	-3	15	17	10580	212	11	14.4	-0.3	0.4	68	21.54

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method-------------->	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units--------------->	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
1298	619684.00	5331670.00	99-JJ-1442	<1	<1	-3	12	11	3753	55	11	4.5	-0.3	0.5	58	39.67
1299	619481.39	5332050.44	99-JJ-1443	3	1	-3	16	13	4028	54	14	5.2	-0.3	0.4	68	46
1300	619240.42	5332500.73	99-JJ-1444	2	<1	-3	21	16	4501	50	18	9.1	-0.3	0.5	79	52.37
1301	619047.00	5333380.00	99-JJ-1445	<1	<1	-3	6	10	6214	131	7	2.4	-0.3	-0.3	54	10.91
1302	620316.34	5333735.47	99-JJ-1446	2	<1	-3	16	17	7625	160	13	8.8	-0.3	0.6	73	36.07
1304	618971.00	5334480.00	99-JJ-1448	<1	<1	-3	18	7	3090	48	12	4.3	-0.3	0.4	53	62.79
1305	618672.57	5334943.28	99-JJ-1449	3	<1	-3	15	7	3697	48	11	5.7	-0.3	0.5	50	53.19
1306	619487.00	5335400.00	99-JJ-1451	2	<1	-3	20	11	2902	47	14	5.6	-0.3	0.4	74	59.97
1307	620184.00	5334920.00	99-JJ-1452	2	<1	-4	25	10	2628	46	11	9.6	-0.4	0.6	69	58.69
1308	620154.00	5335720.00	99-JJ-1453	3	<1	-3	24	11	4022	127	11	6.0	-0.3	0.8	71	55.44
1309	621139.00	5336990.00	99-JJ-1454	3	<1	-3	29	15	9838	130	14	4.0	-0.3	0.7	90	39.09
1310	621625.00	5336920.00	99-JJ-1455	3	2	-3	30	12	3522	34	15	5.6	-0.3	0.6	89	44.56
1311	622168.58	5337448.86	99-JJ-1456	2	2	-4	50	9	3701	41	18	4.0	-0.4	0.5	95	60.01
1312	622307.00	5339860.00	99-JJ-1457	4	1	-3	30	13	4925	83	20	9.1	-0.3	0.8	80	61.93
1313	623201.00	5339950.00	99-JJ-1458	3	2	-3	35	13	4328	90	17	3.7	0.7	0.8	94	62.4
1314	623778.00	5340630.00	99-JJ-1459	4	2	-3	90	11	24359	288	16	6.6	0.7	0.7	68	60.67
1315	624627.00	5341000.00	99-JJ-1461	24	<1	3	29	<4	215987	377832	16	2.8	0.7	0.4	106	35.42
1316	625805.90	5340579.43	99-JJ-1462	110	6	5	154	12	123454	606	36	15.5	3.5	0.8	213	17.99
1317	624157.05	5340154.56	99-JJ-1463	6	4	-3	39	9	5940	135	15	4.7	0.8	0.7	84	52.74
1318	628793.54	5337660.38	99-JJ-1464	1	3	-3	90	17	9300	109	103	6.9	0.6	0.8	99	57.76
1319	629509.00	5338240.00	99-JJ-1465	3	2	-4	86	16	4115	60	22	6.0	-0.4	-0.4	93	57.33
1320	629449.15	5336999.07	99-JJ-1466	<1	<1	-3	14	12	5164	74	9	4.9	-0.3	5.2	38	15.53
1321	628763.25	5336771.39	99-JJ-1467	2	1	-3	14	13	5324	96	9	7.2	-0.3	-0.3	50	24.84
1322	627801.17	5336714.14	99-JJ-1468	<1	3	-3	10	16	6789	98	9	4.8	-0.3	-0.3	51	19.58
1323	630328.00	5336200.00	99-JJ-1469	1	2	-3	27	20	6583	133	11	4.4	-0.3	0.5	128	44.16
1324	630904.00	5335460.00	99-JJ-1471	3	2	10	16	17	5983	58	12	12.4	-0.3	2.1	57	41.47
1325	629991.32	5333244.57	99-JJ-1472	2	1	10	21	18	5127	61	15	5.1	0.3	0.5	71	44
1326	629464.47	5333574.42	99-JJ-1473	1	<1	4	10	8	2961	31	9	4.5	-0.3	0.4	28	42.79
1327	627967.34	5334441.66	99-JJ-1474	4	3	14	12	13	4748	136	9	5.0	0.5	0.6	66	30.36
1328	627204.00	5335420.00	99-JJ-1475	2	<1	-3	20	17	7235	159	11	5.4	0.6	0.6	81	46.46
1329	625870.00	5335430.00	99-JJ-1476	2	7	7	22	10	3154	55	13	4.6	-0.3	0.5	108	49.4
1330	625552.00	5333600.00	99-JJ-1477	2	<1	15	18	15	8132	142	12	4.9	0.3	0.4	92	46.39
1331	626477.00	5333140.00	99-JJ-1478	2	3	9	24	12	3622	49	15	2.4	-0.3	0.2	108	51.1
1332	627599.00	5331840.00	99-JJ-1479	<1	2	13	20	16	5655	85	17	3.9	0.9	0.5	88	53.85
1333	626355.00	5331750.00	99-JJ-1481	2	3	8	24	18	4982	97	13	5.4	-0.3	0.5	105	46.8
1334	625214.58	5330874.19	99-JJ-1482	2	<1	-3	24	18	10314	156	13	5.0	0.3	0.4	108	50.12
1335	625310.00	5331340.00	99-JJ-1483	2	<1	-3	17	21	6781	85	13	4.9	0.5	0.5	78	32.1
1336	624172.00	5331610.00	99-JJ-1484	1	2	24	19	17	6051	175	12	5.2	-0.9	-0.9	77	58.2
1337	623711.32	5331787.99	99-JJ-1485	2	3	-3	14	15	6470	92	11	3.0	-0.3	0.4	81	30.15
1338	623596.00	5332350.00	99-JJ-1486	2	<1	-3	18	14	4808	69	12	4.2	-0.3	0.4	76	51.15
1339	622686.00	5333100.00	99-JJ-1487	2	2	-9	26	17	9356	82	12	8.6	-0.9	-0.9	84	62.19
1340	621632.43	5332927.06	99-JJ-1488	2	<1	-6	26	14	2977	39	19	4.4	-0.6	-0.6	105	61.7
1341	623110.00	5330400.00	99-JJ-1489	1	2	-3	21	15	5009	91	16	4.0	-0.3	0.4	103	52.03
1342	623596.00	5329460.00	99-JJ-1491	2	<1	-3	18	9	2849	36	16	6.8	-0.3	0.3	46	62.96
1343	621687.88	5325458.16	99-JJ-1492	1	2	-3	14	11	2548	51	13	5.7	-0.3	0.5	81	58.29
1344	620276.99	5324301.58	99-JJ-1493	2	<1	-4	33	34	11539	145	12	8.3	-0.4	0.8	148	41.37
1345	617652.00	5321660.00	99-JJ-1494	15	4	11	9	14	7260	106	8	3.6	0.4	0.4	50	54.03
1346	615248.34	5320932.94	99-JJ-1495	3	2	-3	16	12	2990	48	14	4.6	-0.3	0.3	47	43.78
1347	619009.34	5314971.92	99-JJ-1496	3	3	-3	22	19	5216	53	20	18.4	0.6	0.8	79	46.2
1348	621925.51	5314115.20	99-JJ-1497	2	<1	-3	11	14	5415	65	11	13.6	-0.3	0.3	91	33.28
1349	622787.94	5313584.40	99-JJ-1498	2	2	-3	35	16	4443	52	24	8.8	-0.3	0.6	125	46.83
1350	623211.20	5313719.53	99-JJ-1499	3	2	-3	41	21	17508	274	13	16.7	-0.3	0.5	122	60.34
1351	623037.12	5311965.53	99-JJ-1501	2	3	-3	85	24	7831	134	18	6.1	2.4	2.0	134	51.03
1352	621499.14	5311207.92	99-JJ-1502	1	<1	-3	48	17	4503	59	19	9.6	0.6	0.9	125	50.66
1353	621570.77	5312119.43	99-JJ-1503	1	4	-3	22	21	6477	74	15	7.0	-0.3	0.7	137	35.45
1354	622389.02	5312348.27	99-JJ-1504	2	<1	-3	37	21	5917	102	21	13.1	1.1	1.0	133	51.04
1355	622305.03	5312861.28	99-JJ-1505	3	1	-3	24	19	6569	167	21	18.0	-0.3	0.8	98	47.29
1356	621791.00	5313220.00	99-JJ-1506	2	2	-3	34	21	8596	260	16	7.0	-0.3	0.5	134	44.94
1357	621230.00	5312670.00	99-JJ-1507	4	4	-3	57	26	20019	842	14	15.5	1.8	1.5	170	63.22
1358	621324.16	5313028.13	99-JJ-1508	3	2	-3	35	16	4149	58	23	16.6	0.9	0.9	83	61.06
1360	620013.58	5314414.04	99-JJ-1511	5	<1	n/a	13	18	12256	98	15	34.7	n/a	n/a	98	37.25

Site	Easting	Northing	Sample Number	As	Au	Au	Cu	Cr	Fe	Mn	Ni	Pb	Pd	Pt	Zn	LOI
		NAD 83	Method------------>	INAA	INAA	ICP-MS/FA	ICPMS	ICP-OES	ICP-OES	ICP-OES	ICPMS	ICPMS	ICP-MS/FA	ICP-MS/FA	ICP-OES	GRAV.
		UTM	Units------------>	ppm	ppb	ppb	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppb	ppm	%
		Zone 16	Detection Limit-->	1	1	3	2	4	5	1	5	0.1	0.3	0.3	2	0.1
1361	614666.00	5321850.00	99-JJ-1512	18	5	3	34	27	11075	292	24	27.8	-0.3	0.6	205	52.63
1362	615575.00	5321920.00	99-JJ-1513	10	3	-3	23	6	4114	69	15	4.4	-0.3	0.5	64	65.83
1363	615889.34	5323178.78	99-JJ-1514	9	14	-7	36	21	7500	119	34	5.8	-0.7	-0.7	117	53.93
1364	616034.44	5323673.82	99-JJ-1515	22	<1	-3	25	22	7088	224	20	20.3	0.7	0.9	109	56.34
1366	621320.24	5328713.77	99-JJ-1517	4	<1	-3	23	11	3058	41	15	13.0	-0.3	0.5	72	54.11
1367	622602.61	5327795.27	99-JJ-1518	10	<1	-3	31	11	2856	46	15	3.0	-0.3	0.5	87	53.11
1368	622926.77	5328570.47	99-JJ-1519	2	<1	-3	36	16	2374	39	24	7.4	-0.3	0.5	82	53.82
1369	622409.71	5331262.93	99-JJ-1521	3	2	-4	19	12	3977	51	16	6.9	-0.4	0.4	85	61.79
1370	623110.00	5334820.00	99-JJ-1522	2	2	-3	23	56	5665	81	26	5.2	-0.3	0.6	104	44.21
1371	621852.00	5334790.00	99-JJ-1523	1	<1	-3	12	13	3791	45	9	4.7	-0.3	0.3	45	37.76
1372	622692.38	5335749.96	99-JJ-1524	2	3	-3	14	10	2387	33	14	5.3	-0.3	0.4	45	45.85
1373	622184.31	5336894.63	99-JJ-1525	<1	<1	-3	15	12	3403	52	12	3.3	-0.3	0.5	50	40.99
1374	626784.71	5336261.09	99-JJ-1526	1	<1	-3	12	10	3200	38	12	6.5	-0.3	0.5	67	41.09
1375	628706.90	5335575.28	99-JJ-1527	3	<1	-3	10	20	9512	111	10	26.9	-0.3	0.5	77	35.03
1376	629800.92	5334908.31	99-JJ-1528	2	1	-3	19	8	4560	62	10	3.3	-0.3	0.3	45	54.64
1377	633588.00	5332970.00	99-JJ-1529	1	2	-3	22	10	5571	69	13	3.8	-0.3	0.4	63	51.82
1378	633958.33	5332875.97	99-JJ-1531	4	<1	-3	19	16	7259	328	12	8.7	-0.3	0.4	82	62.34
1379	633819.42	5331915.86	99-JJ-1532	1	<1	-3	14	12	3422	54	10	4.1	-0.3	-0.3	53	43.29
1380	631180.79	5330963.02	99-JJ-1533	2	2	-3	24	14	3791	35	15	4.4	-0.3	0.4	82	55.42
1381	627829.84	5331045.77	99-JJ-1534	1	3	-3	17	16	5671	91	12	4.0	0.3	0.4	73	42.29
1382	627023.00	5330200.00	99-JJ-1535	2	1	-3	15	16	4935	69	11	3.6	-0.3	0.3	67	42.67
1383	626507.00	5330140.00	99-JJ-1536	2	<1	-3	17	10	2717	31	11	7.1	-0.3	0.3	52	49.31
1384	627978.00	5329780.00	99-JJ-1537	1	1	-3	16	15	5593	61	13	4.1	-0.3	0.4	70	39.12
1385	631828.13	5328718.43	99-JJ-1538	2	<1	-3	17	13	4529	57	14	4.2	-0.3	0.3	61	42.39
1386	631419.31	5328267.83	99-JJ-1539	3	1	-3	13	15	3704	39	15	9.1	-0.3	0.4	65	41.66
1387	624486.30	5326200.10	99-JJ-1541	3	1	-3	25	10	3208	44	14	9.7	-0.3	0.4	61	57.82
1388	620759.30	5323825.98	99-JJ-1542	4	<1	-3	19	19	4981	36	13	7.0	-0.3	-0.3	115	27.8
1389	620260.00	5323680.00	99-JJ-1543	4	2	-3	33	19	4474	44	13	7.0	0.3	0.5	127	50.43
1390	619761.76	5324218.77	99-JJ-1544	2	<1	-3	22	13	6342	79	13	3.7	-0.3	0.3	92	63
1391	619153.00	5324010.00	99-JJ-1545	5	7	4	28	28	7564	127	22	7.1	-0.3	-0.3	115	34.17
1392	618079.45	5323993.31	99-JJ-1546	3	3	-3	54	27	9578	95	20	37.7	-0.3	0.4	262	61.35
1393	617424.06	5323577.79	99-JJ-1547	5	1	3	30	15	4156	47	17	19.4	-0.3	0.4	70	58.21
1394	617730.72	5323704.02	99-JJ-1548	5	<1	-3	26	13	3332	47	17	10.1	-0.3	0.4	90	47.43
1395	616562.00	5323570.00	99-JJ-1549	26	2	-3	28	18	8053	99	23	29.0	-0.3	0.4	148	59.04
1396	617500.00	5323220.00	99-JJ-1551	30	3	-3	31	25	6535	97	22	7.0	-0.3	0.3	80	49.96
1397	616530.00	5322940.00	99-JJ-1552	8	<1	-3	33	19	10293	205	19	7.9	0.4	0.4	109	57.28
1398	617970.00	5322560.00	99-JJ-1553	16	3	3	34	22	9284	252	19	7.4	1.3	0.3	101	51.78
1399	619729.00	5322320.00	99-JJ-1554	17	4	-4	36	23	6920	133	30	6.3	-0.4	0.6	188	51.4
1400	619456.00	5321680.00	99-JJ-1555	27	4	11	19	15	13200	238	14	7.5	0.9	-0.3	118	32.44
1401	619077.00	5322000.00	99-JJ-1556	8	2	4	14	13	7740	148	10	3.9	-0.3	-0.3	33	21.44
1402	619292.64	5321471.15	99-JJ-1557	24	5	3	31	<4	4250	80	13	3.2	-0.3	-0.3	221	77.7
1403	620602.10	5321512.16	99-JJ-1558	13	10	4	21	13	3664	46	22	17.5	0.6	0.4	94	48.09
1404	620601.89	5321012.54	99-JJ-1559	9	7	6	16	15	3942	47	21	22.1	-0.3	0.4	75	45.35
1405	620554.23	5320771.71	99-JJ-1561	10	2	4	38	24	4010	43	58	8.7	1.2	0.6	122	45.04
1406	620366.00	5319720.00	99-JJ-1562	2	<1	-3	24	20	4941	66	17	9.5	-0.3	0.4	111	48.18
1407	619880.62	5319740.61	99-JJ-1563	2	<1	-3	18	14	4053	48	18	17.5	-0.3	0.3	182	36.35
1408	619792.63	5319106.67	99-JJ-1564	2	1	-3	9	12	3522	34	8	16.8	-0.3	0.3	45	39.82
1409	618274.19	5319302.46	99-JJ-1565	3	6	-3	17	14	6000	55	14	27.8	-0.3	0.6	97	31.66
		Maximum Value----------------		280	72	49	245	193	215987	377832	115	47.8	11.7	5.9	922	91.8
		Minimum Value----------------		<2	<1	-3	5	<4	55	2	<5	0.9	-0.3	-0.3	<2	10.9
		Median Value------------------		2	1	-3	26	16	5318	71	14	6.8	-0.3	0.5	83	46.3
		Average Value-----------------		4	1	-3	33	19	7152	401	17	8.3	0.6	0.6	91	46.3

Metric Conversion Table

Conversion from SI to Imperial			**Conversion from Imperial to SI**		
SI Unit	*Multiplied by*	*Gives*	*Imperial Unit*	*Multiplied by*	*Gives*
			LENGTH		
1 mm	0.039 37	inches	1 inch	**25.4**	mm
1 cm	0.393 70	inches	1 inch	**2.54**	cm
1 m	3.280 84	feet	1 foot	**0.304 8**	m
1 m	0.049 709	chains	1 chain	20.116 8	m
1 km	0.621 371	miles (statute)	1 mile (statute)	**1.609 344**	km
			AREA		
1 cm^2	0.155 0	square inches	1 square inch	**6.451 6**	cm^2
1 m^2	10.763 9	square feet	1 square foot	**0.092 903 04**	m^2
1 km^2	0.386 10	square miles	1 square mile	2.589 988	km^2
1 ha	2.471 054	acres	1 acre	0.404 685 6	ha
			VOLUME		
1 cm^3	0.061 023	cubic inches	1 cubic inch	**16.387 064**	cm^3
1 m^3	35.314 7	cubic feet	1 cubic foot	0.028 316 85	m^3
1 m^3	1.307 951	cubic yards	1 cubic yard	0.764 554 86	m^3
			CAPACITY		
1 L	1.759 755	pints	1 pint	0.568 261	L
1 L	0.879 877	quarts	1 quart	1.136 522	L
1 L	0.219 969	gallons	1 gallon	**4.546 090**	L
			MASS		
1 g	0.035 273 962	ounces (avdp)	1 ounce (avdp)	28.349 523	g
1 g	0.032 150 747	ounces (troy)	1 ounce (troy)	**31.103 476 8**	g
1 kg	2.204 622 6	pounds (avdp)	1 pound (avdp)	**0.453 592 37**	kg
1 kg	0.001 102 3	tons (short)	1 ton (short)	**907.184 74**	kg
1 t	1.102 311 3	tons (short)	1 ton (short)	**0.907 184 74**	t
1 kg	0.000 984 21	tons (long)	1 ton (long)	**1016.046 908 8**	kg
1 t	0.984 206 5	tons (long)	1 ton (long)	**1.016 046 90**	t
			CONCENTRATION		
1 g/t	0.029 166 6	ounce (troy)/ ton (short)	1 ounce (troy)/ ton (short)	34.285 714 2	g/t
1 g/t	0.583 333 33	pennyweights/ ton (short)	1 pennyweight/ ton (short)	1.714 285 7	g/t

OTHER USEFUL CONVERSION FACTORS

	Multiplied by	
1 ounce (troy) per ton (short)	31.103 477	grams per ton (short)
1 gram per ton (short)	0.032 151	ounces (troy) per ton (short)
1 ounce (troy) per ton (short)	20.0	pennyweights per ton (short)
1 pennyweight per ton (short)	0.05	ounces (troy) per ton (short)

Note: Conversion factors which are in bold type are exact. The conversion factors have been taken from or have been derived from factors given in the Metric Practice Guide for the Canadian Mining and Metallurgical Industries, published by the Mining Association of Canada in co-operation with the Coal Association of Canada.

MAPS NOT FILMED

CARTES NON REPRODUITES

micromedia
a division of IHS Canada

20 Victoria Street
Toronto, Ontario M5C 2N8
Tel.: (416) 362-5211
Toll Free: 1-800-387-2689
Fax: (416) 362-6161
Email: info@micromedia.on.ca